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BULLETIN
OF THE
MEDICAL LIBRARY ASSOCIATION

VOLUME 41 NUMBER 3

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EDITORIAL POLICIES FOR THE GUIDANCE OF AUTHORS

1. *Kinds of articles accepted.* Contributions of value to medical bibliography, medical librarianship, to the history of medical books, libraries and librarians, and to the history of medicine are solicited. No paper which has already appeared elsewhere will be accepted, nor will simultaneous publication elsewhere be permitted.

2. The editors reserve the right to return a manuscript to the author for revision if it is not in standard form, or to make minor editorial changes in the manuscript, if this can be done without changing the style of the article.

3. *Manuscripts* should not exceed twenty-five typewritten pages. They should be double spaced on one side of the paper and illustrations should be on separate sheets. The original copy and two carbon copies (only one copy of the illustrations needed) should be sent to the Editor. The author should retain one copy. The official title and address of the author should be included at the head of the manuscript.

4. *Illustrations* should be numbered and marked with the author's name. Legends should be typed on separate sheets and be placed with the illustrations. The text should contain notations of the approximate position of the illustrations. The number of tables and illustrations should be kept at a minimum. An excessive number of these may result in the rejection of the manuscript, or the author may be billed for the cost of printing them.

5. *References.* All citations should be in the style of either the *Index-Catalogus* or the *Quarterly Cumulative Index Medicus.* Abbreviations of journal titles should be identical with those of the latter index.

6. *Footnotes.* Footnotes should appear on the same page of the manuscript in which reference is made to them. They should be numbered consecutively from the beginning to the end of the manuscript.

7. In contributions dealing chiefly with bibliography, the citations will be printed in the main text. Each annotation to citations in such bibliographies should be typed in a separate paragraph.

8. *Galley proofs* will be submitted to authors for the correction of printers' errors. Changes in the text at this stage will be billed to the author. Promptness in the return of galleys is essential.

9. *Reprints* may be purchased at cost. For prices, address correspondence to the Waverly Press.

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International Medical Documentation and the World Health Organization

By N. Howard-Jones, M.R.C.S., L.R.C.P., *Director*

Division of Editorial and Reference Services, World Health Organization, Geneva, Switzerland

In an interesting paper, *International Medical Documentation: Present Status and Future Prospects*, (1) the author deals mainly with recent attempts at the international co-ordination of national medical documentation services. I am glad to have the opportunity to give here a brief account of some of the day-to-day activities in international medical documentation carried out by the World Health Organization (WHO).

WHO, a Specialized Agency of the United Nations, has its headquarters in Geneva, Switzerland, and has six Regional Offices. (2) The Constitution of WHO was drafted and signed at the International Health Conference, which met in New York in 1946 and appointed an Interim Commission to serve until the Constitution could be ratified by a sufficient number of Member States of the United Nations. On 1 September 1948, the permanent Organization was established. WHO has inherited the functions of the Office International d'Hygiène Publique, which was founded in Paris in 1909, and the Health Organization of the League of Nations, which was definitively established by the League in 1923. (3)

What is International Medical Documentation?

The word "documentation" has been defined in many ways, but for the purpose of this article it is used to refer to functions which are usually intermediary between author and reader but do not include the mechanical aspects of reproduction and distribution. Broadly speaking, an author's control of his paper ceases when he has submitted his manuscript for publication. The process by which the information and ideas contained in the author's manuscript are ultimately made available in acceptable form to other workers in the same or related fields involves a whole complex of intermediary functions which can properly be comprised in the term "documentation." At one end of the scale, there is the editorial function of selection for publication, which involves some ability to appraise the value of a paper in the light of available published data on the same subject, often with the help of expert referees. At the other end of the scale, there is the bibliographic function of determining that such a paper has been published, locating it, and making it available to

the interested reader. This process requires knowledge of the vehicles of publication and of the appropriate indexes, bibliographies, abstracting services, and other library tools.

The documentation activities of the World Health Organization are international in the sense that they are the work of an international organization, are carried out by an international staff, and are specifically intended as a means of facilitating the international exchange of ideas and information. They are medical in the sense that the subject fields covered are all directly or indirectly related to WHO's major objective of "the attainment by all peoples of the highest possible level of health."

In WHO, all full-time documentation activities which can be centralized are the responsibility of the Division of Editorial and Reference Services. (4) In addition to the Office of the Director, the Division consists of Sections for Technical Publications, Health Legislation, Documents and Official Records, Translation, Library and Reference Services. The Division has an international staff of sixty-six members, of whom twenty-three are editors, eleven translators, and eighteen library staff.

The inclusion of full-time translators on the staff at once indicates one of the characteristic features of international documentation: the need for working in more than one language. All the official documents and nearly all the publications of the Organization (5) are produced in two working languages, English and French, and translations have to be made from one of these languages into the other, or from other languages into both. Translation is, therefore, a basic element in the intermediary function of documentation as practised in an international organization.

Publications

The periodicals published by WHO are the *Bulletin of the World Health Organization*, the *Chronicle of the World Health Organization*, and the *International Digest of Health Legislation*. There are also epidemiological and statistical periodicals, to which reference is made below. In addition to the periodicals, there are the *World Health Organization: Technical Report Series*, the *World Health Organization: Monograph Series*, and the *Official Records of the World Health Organization*. There is also a series of Supplements to the *Bulletin*. Of the periodicals referred to above, the *Bulletin* is issued in a single mixed-language edition, and the other two in separate English and French editions.

The nature of the work performed by the full-time editorial staff on these different periodicals varies considerably. In the case of the monthly *Bulletin*, which contains technical articles of international interest arising from or closely related to WHO's program activities, the work is similar to that in a national medical publishing office, with the exception that comprehensive summaries of all papers are prepared in both English and French; the mother-tongue of

the author is often neither English nor French, and much linguistic revision is therefore required; special care is taken to establish an internationally acceptable house style in regard to terminology, nomenclatures, and abbreviations. This last point is of special importance, as much of WHO's work, especially at headquarters, is directed towards the attainment of international agreement on terminology, specifications for drugs and equipment, and technical procedures.

With publications, such as the *Technical Report Series*, which are published simultaneously in English and French, a very exacting revision and comparison of the two texts is required. It is not enough that each prepared manuscript should read well in each language. Before they are passed for publication, a detailed correlation of the English and French texts must be made to ensure the closest possible correspondence of meaning in both editions, which are equally authentic. The *Technical Report Series* consists of reports of international groups of experts convened to advise on particular subjects. Although such reports often contain detailed recommendations on terminology, they are usually drawn up originally in only one of the working languages. The preparation of an adequate version in the other working language often calls for painstaking research by both the Translation and the Technical Publications Sections.

For the *Chronicle*, a monthly account of WHO's work and publications, the complete text is written in either English or French within the Technical Publications Section. The original manuscript is then translated into the other working language by the Translation Section, and both texts are then carefully checked and correlated before publication. (6)

The production of the *International Digest of Health Legislation* involves a wide range of documentation services, which start with the constant effort to obtain access to as many as possible of the published sources of national legislation. These exist in the form of official gazettes, bulletins, and slip laws, which constitute the raw material of the *Digest*. All this material is screened by the small multilingual staff constituting the Health Legislation Section, whose task is to identify legislation directly pertaining to health, to evaluate the relative interest of the material found, and to determine whether abstracts, verbatim excerpts, or, occasionally, complete texts should be prepared in English and French for publication in both editions of the *Digest*.

The *Digest* also contains a bibliographical section, in which are reviewed all books with a bearing on health legislation received in the WHO Library. A more recent development is a series of comparative studies of health legislation on specific subjects in different countries. The *Digest* is now in its fourth volume. Although any single part is of relatively little interest to the casual reader, the bound volumes will after ten or twenty years provide a unique reference source to the world's health legislation. Indexes are published with the last number

of each volume, and these will be cumulated at five-year, and possibly also, ten-year intervals.

The *Official Records* are the published versions, in separate English and French editions, of documents presented to, or recording sessions of, the governing bodies of the Organization, the World Health Assembly, and the Executive Board. They are therefore not "medical publications," although some of them abound in technical terms which are not always easy to render satisfactorily from one language into another. There are now forty-seven numbers of this series available in separate English and French editions, amounting to a total of nearly 9,000 pages in each language. Together they form a complete history of WHO and its preceding Interim Commission.

The editorial work done on this series has its own special features. While the subject matter has not the same intrinsic interest as that of the other publications, the *Official Records* are an essential part of the elaborate machinery of an intergovernmental organization. *Official Records* editors must have a sound knowledge of the history, policies, and organization of WHO, and must be alert to detect small errors and discrepancies which might give rise to misunderstandings, and to add essential explanatory notes and references to preceding volumes. The exact wording of resolutions in both languages is of great importance, since these constitute the statutes of WHO. Names, initials, and official designations of some three hundred delegates, alternates, advisers, and observers to the World Health Assembly must be absolutely accurate, for people do not like being wrongly described in print.

There is a very tight publishing schedule for some of these volumes, and this must not be overrun even if long hours of overtime have to be worked during evenings and weekends. To meet these rigid schedules, editors have sometimes had to work continuously for over twenty-four hours to see the last proofs through. One of our regrets is that the publishing schedules simply do not permit the preparation of indexes for some volumes which badly need them. A different sort of need that has been felt to a varying degree for all publications is an editorial style manual. Such a manual has been in preparation for some months and will shortly be issued in provisional mimeographed form for use by the WHO secretariat.

Translations

To find a precedent for a group of full-time translators working on medical texts, one would probably have to go back to the days of monastic medicine. However, the work of a translator in WHO has little in common with that of his early predecessors. When he arrives in his office he may find awaiting him translation texts on almost any medical subject. Some of these are for publication, and others are working documents for expert committees. Often they contain highly technical details of laboratory procedures and apparatus, and

to find the correct equivalents for these in another language may be a difficult and time-consuming task. Difficulties are also often experienced in rendering administrative terminology from one language to another. All translations are dictated, and the average annual output per translator is about half a million words, equivalent to nearly 2000 pages of this BULLETIN. The typewritten transcripts are checked by the translator and then passed to a senior translator for revision. Translatability is perhaps the severest test of precision of meaning and clarity of expression, and difficulties in translation have often led to a realization that the original needed redrafting.

Although the great bulk of WHO translations is done in the Translation Section, special jobs are sometimes sent to outside experts who are willing to accept the work. However, all these are carefully revised before publication to ensure that terms used are in conformity with established international usages. During meetings of the governing bodies a continuous translation service is maintained by working shifts, and for the annual World Health Assembly additional temporary translators have to be engaged.

LIBRARY SERVICES

Accounts of the work of the WHO Library have already been published by its former and present chiefs, Miss Ethel Wigmore (7) and Mr. H. A. Izant, (8) and Mr. Izant is scheduled to read a paper on the same subject at the First International Congress on Medical Librarianship this year in London. I shall not therefore give here anything but the briefest sketch of the distinguishing features of WHO's work in this field.

The Library is only six years old, but is receiving 1,500 current periodicals, two-thirds of them in exchange for WHO publications. Including the former library of the Office International d'Hygiène Publique, it has 30,000 volumes. Although it is primarily a public-health collection, WHO's special interest in certain scientific fields has resulted in a greater emphasis on such basic sciences as chemistry, biochemistry, and microbiology than would normally be expected of a public-health library. There is also a comprehensive collection of general and technical dictionaries, directories, and similar reference tools for the use of the editorial, translation, and technical services. Of a total Library staff of 18, representing 9 different nationalities, 9 are qualified librarians.

A special feature is the international character of the collection. WHO professional staff requiring library services are of many nationalities and must have access to recent works in their own languages. Apart from the services supplied to WHO professional staff at Headquarters and in the Regional Offices, WHO also provides library services on request from Member Countries. All medical literature ordered by Regional Offices as part of their programs in Member Countries is procured by the WHO Library in Geneva. This has led to the building-up of an ever-growing collection of publishers' catalogs and

national bibliographical and trade reference works. A very full library service is given to the Headquarters professional staff. This includes the regular circulation of periodicals and the provision on request of index cards containing all references to specified subjects found in incoming periodicals.

Two of the characteristic functions of the WHO Headquarters are preparing and servicing international meetings of experts and keeping WHO field workers up to date on technical methods and procedures. For these purposes, printed indexes and abstracts are often too late to be of practical value. Yet it is probably as true of WHO as of other places that professional staff often do not sufficiently know or make use of existing bibliographic tools. In an attempt to improve this situation, a guide to indexes and abstracting journals received by the WHO Library has been prepared in English and French for the use of all WHO professional staff. It is hoped that, after a trial period, this guide may be extended and published to make it of more general utility. By agreement with UNESCO, the WHO Library will also be responsible for preparing future editions of *World Medical Periodicals*, which is a joint UNESCO/WHO publication.

Conclusions

The essentially intermediary function of documentation, which is the basis of the definition suggested earlier in this article, implies the need for close working relations with all sections concerned with WHO's technical programs. Some of these programs result in special publications, such as the *Manual of the International Statistical Classification of Diseases, Injuries and Causes of Death* and the *Pharmacopoea Internationalis*. These are the product of the work of international committees of experts and appropriate special sections at WHO Headquarters, and the work of the central documentation service of WHO, the Division of Editorial and Reference Services, is largely confined to routine processing operations, which usually include detailed editorial preparation and correlation of manuscripts in the two working languages.

The epidemiological and statistical publications, the *Weekly Epidemiological Record*, the monthly *Epidemiological and Vital Statistics Report*, and *Annual Epidemiological and Vital Statistics*, are the visible expression of the system of world-wide epidemiological and statistical reporting which was inherited from the Office International d'Hygiène Publique and the League of Nations, and has since been continued and developed by WHO. Editorial responsibility for these publications lies with the epidemiological and statistical services.

This article would not be complete without reference to the activities in international medical documentation—in the form of publications and library services—which have been undertaken for many years by the Pan American Sanitary Bureau, which acts also as WHO's Regional Office for the Americas. These will surely be known already to most readers of this Bulletin.

The international exchange of information, often with the specific object of

obtaining some form of international agreement or standardization, is characteristic of the work of WHO as a whole. Although various types of documentation form a part of most WHO activities, all full-time documentation functions have been assimilated into a closely integrated international medical documentation service. The functions of WHO editors, translators, and librarians differ, but they are all different phases of what is essentially a continuous operation. To avoid confusion of responsibilities and duplication of effort it is necessary to establish definite, if sometimes rather arbitrary, limits at the points of closest contact.

In his Annual Report for 1952 to the World Health Assembly and the United Nations, the Director-General of WHO said:

> In the year under review, the Organization's work of international medical documentation can be said to have reached maturity . . . A firm foundation has now been made for a complete documentation service, ranging from the preparation on request of bibliographies on special subjects to the publication of monographs in the Organization's two working languages. (9)

This documentation service has evolved to its present state during the period of nearly five years since WHO was permanently established in 1948. In its earlier years, most of its time was taken up in meeting the most immediate demands for services and in organizational problems. It is to be hoped that in future years ways will be found to utilize for the general good some of the experiences gained—for in much of WHO's work international problems of medical documentation are to be found in microcosm.

REFERENCES

1. Troxel, W. Bulletin, 40: 277–282, 1952.
2. These are located as follows: Alexandria; Brazzaville; Manila; New Delhi; Washington (where the Pan American Sanitary Bureau acts as the WHO Regional Office for the Americas). The Regional Office for Europe is temporarily located in Geneva.
3. The history of international health work leading to the foundation of WHO is briefly summarized in: Howard-Jones, N. Origins of International Health Work. Brit. med. J. 1: 1032–1037, 1950. More recently, a standard work of reference on this subject has been provided by Dr. N. M. Goodman in his *International Health Organizations*, London, 1952.
4. This is one of 10 Divisions, which are distributed among the three Departments of the Headquarters Secretariat.
5. The exceptions are the *Bulletin* and a few of the *Monograph Series*.
6. Spanish and Chinese editions of the *Chronicle* are published by the WHO Regional Office for the Americas and the WHO Regional Office for the Western Pacific respectively.
7. Wigmore, E. World Health Organization Library. Brit. med. J. 1: 1050–1051, 1950.
8. Izant, H. A. The World Health Organization Library Service. Library Trends 1: 240–243, 1952.
9. The Work of WHO: 1952. Annual Report of the Director-General to the World Health Assembly and to the United Nations. Off. Rec. World Hlth Org. 45: 57, 1953.

Selected Periodicals on Psychoanalysis and Related Medical Fields for the General Medical Library

Compiled By the Psychoanalytic Collections Conference, New York

Among the flood of publications in the field of psychoanalysis and the related sciences, it is difficult for the general medical librarian to make a wise choice. The library needs a certain number of the basic titles, but it cannot afford many, for, unless it specializes in psychiatry, it cannot justify more than a working collection. The following list of thirty-seven titles has been compiled to meet this specific need.

To arrive at the number of titles reasonable for such a collection, a sampling was made of the average budget for periodicals in medical libraries of under 25,000 volumes, taking into account not only the money spent for subscriptions but also the cost of periodicals received regularly from exchange or gift. This figure came to slightly over $2,000, the average number of all periodicals received being 227. It has been estimated on the basis of titles covered by the *Current List of Medical Literature* that the periodical literature of psychiatry, medical psychology, psychoanalysis, and neurology forms about fifteen per cent of the total number of medical journals. Applying this rate to the above figures, an estimate of $300 was made as a theoretical budget for the selected list under consideration. As finally selected, the list comes to $284.[1]

It will be noted that more journals from related fields, other than psychoanalysis *per se*, are included; these fields are either an integral part of the foundations of psychoanalysis or are fields influenced by it and should be represented. The present basic list is comprised chiefly of material on the medical aspects, leaving to a future broader list for research collections those periodicals primarily of interest to a specialized clientele of neuropsychiatrists.

The entries include only data bearing on selection and acquisition, omitting matters of bibliographical concern, such as title changes, since these details can be secured from easily accessible sources. The annotations do not repeat, as a rule, information given in the title, but do furnish additional data concerning sponsoring body and subject fields covered, as well as the audience addressed, the variety of contents, and the organs in which the periodical is indexed. In the necessity for brevity, information is not cited which is implied by the other data given. For instance, a journal which is sponsored by an or-

[1] Prices are as of January 1953, unless otherwise noted.

ganization may be expected to contain its proceedings.

The initial selection was made by a group of seven medical librarians in New York City, forming the Psychoanalytic Collections Conference,[2] who are cooperating in projects dealing with the literature of psychoanalysis. It was decided to make the choices according to the considered opinions of users of the periodicals, namely, specialists and librarians in the field. Evaluation based on the number of times a journal is cited in certain standard works over a given period of time—a method employed in other studies[3,4]—seemed open to inadvertent weighting because of inbreeding—that is, the reading of obvious and accessible journals leads to their being most frequently cited, and this in turn produces increased reading of those journals, and this again increased citations. In the present compilation, a score of specialists including psychiatrists, psychologists, psychoanalysts, and neurologists collaborated with the group. The resulting list represents therefore the consensus of specialists and librarians. Those titles on which agreement was virtually unanimous have been starred.

Key to Annotations

A. Sponsoring body (if not given in title or if needing clarification)

B. Audience addressed: Psychiatrists, psychoanalysts, psychologists, or neurologists (*Psychiatrists, etc.*); others

C. Special or general subject fields covered and aspects emphasized (if not given in title or if needing clarification)

D. Miscellaneous notes, including, for instance: presence of proceedings of organizations other than the sponsor, type of index, cumulative indexes, etc.

E. Types of contents: Original articles (*Orig. art.*); Review articles (*Rev. art.*); News notes (*News*); Abstracts (*Abstr.*); Bibliographies (*Bibl.*); Book reviews (*Bk. rev.*); Film reviews or film abstracts (*Film rev.*); Case reports (*Cases*).

F. Indexing organs: *Current List of Medical Literature* (*CLML*); *Excerpta medica* (*EM*); *Psychological Abstracts* (*PA*); *Quarterly Cumulative Index Medicus* (*QCIM*).

[2] Miss Helen Bayne, Librarian, New York University-Bellevue Medical Center; Dr. Ilse Bry, Librarian, New York Psychoanalytic Institute; Mr. Wesley Draper, Librarian, Medical Society of the County of Kings; Miss Altagracia Miranda, Librarian, New York Hospital, Payne Whitney Clinic; Dr. Jacob Shatzky, Librarian, New York State Psychiatric Institute; Mrs. Enrica Tunnell, Librarian, Columbia University Psychology Library; Miss Janet Doe, Librarian, New York Academy of Medicine, Acting Chairman.

[3] Louttit, C. M., & Lockridge, L. L. Psychological journals. Amer. Jour. Psychol., 46: 147–48, 1934.

[4] Gregory, Jennie. An evaluation of medical periodicals. Bulletin 25: 172–88, 1937.

SELECTED LIST

1. ★A.M.A. ARCHIVES OF NEUROLOGY AND PSYCHIATRY — v. 1, 1919
535 North Dearborn St., Chicago 10, Ill. — M. — $12.00 a year

A. American Medical Association
B. Psychiatrists, etc.
D. Abstracts of papers presented before other organizations; full analytical index
E. Orig. art.; News; Abstr.; Bk. rev.
F. CLML; EM; PA; QCIM

2. ★AMERICAN JOURNAL OF MENTAL DEFICIENCY — v. 1, 1896
372–374 Broadway, Albany 7, N. Y. — Q. — $7.00 a year

A. American Association on Mental Deficiency
B. In addition to psychiatrists, etc.: educators; hospital administrators
C. Mental deficiency, including sociological aspects; hospital administration
D. Full but general index
E. Orig. art.; Rev. art.; News
F. CLML; EM; PA; QCIM

3. AMERICAN JOURNAL OF OCCUPATIONAL THERAPY — v. 1, 1947
33 West 42 St., New York 36, N. Y. — Bi-M. — $5.00 a year

A. American Occupational Therapy Association
B. Occupational therapists; physicians; nurses; patients' attendants
D. Full but general index
E. Orig. art.; News; Bk. rev.
F. CLML; QCIM

4. ★AMERICAN JOURNAL OF ORTHOPSYCHIATRY — v. 1, 1930
303 Lexington Ave., New York 16, N. Y. — Q. — $8.50 a year

A. American Orthopsychiatric Association
B. In addition to psychiatrists, etc.: educators; social workers; informed laity
C. Behavior difficulties, with emphasis on childhood and adolescence; social and cultural aspects of psychiatry; psychoanalysis; child guidance
D. Brief index; cumulative indexes, v. 1–10 (1930–40), v. 11–20 (1941–50)
E. Orig. art.; News; Bibl.; Bk. rev.; Cases
F. CLML; EM; PA; QCIM

5. ★AMERICAN JOURNAL OF PSYCHIATRY — v. 1, 1844
1601 Edison Highway, Baltimore 13, Md. — M. — $12.00 a year

A. American Psychiatric Association
B. Psychiatrists, etc.
D. Full but general index; cumulative index, v. 1–45 (1844–89)
E. Orig. art.; News; Bk. rev.; Cases
F. CLML; EM; PA; QCIM

6. AMERICAN JOURNAL OF PSYCHOTHERAPY — v. 1, 1947
North Queen St. & McGovern Ave., Lancaster, Pa. — Q. — $10.00 a year

A. Association for the Advancement of Psychotherapy
B. In addition to psychiatrists, etc.: workers in the field

D. Full analytical index
E. Orig. art.; Rev. art.; News; Abstr.; Bibl.; Bk. rev.; Cases
F. CLML; EM; PA; QCIM

7. ★BRAIN: A JOURNAL OF NEUROLOGY — v. 1, 1878
Macmillan & Co., St. Martin's St., London, W.C. 2.
or: St. Martin's Press, 103 Park Ave., New York 17, N. Y. — Q. — $7.00 a year

B. Neurologists; neuro-anatomists; psychiatrists
D. Brief index; cumulative index, v. 1–23 (1878–1900)
E. Orig. art.; Rev. art.; Bibl.; Bk. rev.
F. CLML; EM; PA; QCIM

8. BRITISH JOURNAL OF MEDICAL PSYCHOLOGY — v. 1, 1920
Cambridge University Press, 32 E. 57 St., New York 22, N. Y. — Q. — $6.50 a year

A. British Psychological Society
B. Psychiatrists, etc.
C. Medical psychology; psychoanalysis; projective techniques
D. Author index; cumulative index, v. 1–12 (1920–33) in v. 13
E. Orig. art.; Rev. art.; Bibl.; Bk. rev.
F. CLML; EM; PA; QCIM

9. BULLETIN OF THE MENNINGER CLINIC — v. 1, 1936
Topeka, Kansas — Bi-M. — $3.00 a year

A. Menninger Foundation
B. Psychiatrists, etc.
C. Psychotherapy, including administrative aspects
D. Brief index; cumulative index, v. 1–11 (1936–47)
E. Orig. art.; Bk. rev.; Cases
F. CLML; EM; PA; QCIM

10. BULLETIN OF THE WORLD FEDERATION FOR MENTAL HEALTH — v. 1, 1949
19 Manchester St., London, W.1. — Bi-M. — $1.00 a year*

B. In addition to psychiatrists, etc.: workers in the field; informed laity
D. Brief index
E. Orig. art.; News
F. PA

11. CHILD DEVELOPMENT ABSTRACTS AND BIBLIOGRAPHY — v. 1, 1927
Fayerweather Hall East, Northwestern University, Evanston, Ill. — Bi-M. — $5.00 a year*

A. Society for Research in Child Development
B. In addition to psychiatrists, etc.; educators; social workers
C. Child study; child care

* 1952 price.

D. Full but general index
E. Abstr.; Bibl.; Bk. rev.

12. ELECTROENCEPHALOGRAPHY AND CLINICAL NEUROPHYSIOLOGY — v. 1, 1949
Thérien Frères Limitée, 8125 St. Lawrence Blvd., Montreal 14, Canada. — Q. — $9.00 a year*

A. International Federation of Societies for Electroencephalography and Clinical Neurophysiology
B. Psychiatrists, etc.
D. Full analytical index
E. Orig. art.; Bibl.; Bk. rev.; Cases
F. CLML; EM; PA; QCIM

13. EXCERPTA MEDICA, Section 8, NEUROLOGY AND PSYCHIATRY — v. 1, 1948
Excerpta Medica Service Corp., 280 Madison Ave., New York 16, N. Y. — M. — $22.50 a year

B. Psychiatrists, etc.
D. Full analytical index
E. Abstr.; Bibl.

14. ★INTERNATIONAL JOURNAL OF PSYCHO-ANALYSIS — v. 1, 1920
Bailliere, Tindall & Cox, 7 & 8 Henrietta St., Covent Garden, London, W.C.2. — Q. — $8.50 a year

A. International Psycho-Analytical Association
B. Psychiatrists, etc.
D. Reports from affiliated national associations; no index; cumulative index, v. 1–10 (1920–29)
E. Orig. art.; News; Abstr.; Bk. rev.
F. CLML; EM; PA; QCIM

15. ★JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY — v. 1, 1906
1333 Sixteenth St., N. W., Washington 6, D. C. — Q. — $7.00 a year

A. American Psychological Association
B. In addition to psychiatrists, etc.: educators
D. Brief index
E. Orig. art.; Rev. art.; News; Bibl.; Bk. rev.; Cases
F. CLML; EM; PA; QCIM

16. JOURNAL OF CLINICAL PSYCHOLOGY — v. 1, 1945
5 Pearl St., Brandon, Vt. — Q. — $7.50 a year

B. In addition to psychiatrists, etc.: educators; physicians
D. Brief index
E. Orig. art.; Bk. rev.
F. CLML; EM; PA; QCIM

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* 1952 price.

17. ★JOURNAL OF MENTAL SCIENCE — v. 1, 1855
J. & A. Churchill, Ltd., 104 Gloucester Place, Portman Sq., London, W.1. — Q. — $7.00 a year

A. Royal Medico-Psychological Association
B. Psychiatrists, etc.
C. Psychiatry and neurology
D. List of current periodicals included at intervals; contents of current periodicals, with author index; full but general index; cumulative indexes, v. 1–24 (1855–79), v. 25–38 (1880–92), v. 39–54 (1893–1908), v. 55–68 (1909–22), v. 69–80 (1923–34), v. 81–95 (1935–49)
E. Orig. art.; Abstr.; Bibl.; Bk. rev.; Cases
F. CLML; EM; PA; QCIM

18. ★JOURNAL OF NERVOUS AND MENTAL DISEASE — v. 1, 1874
Coolidge Foundation, 1407 Sherwood Ave., Box 2-W, Richmond 5, Va. — M. — $14.00 a year

B. Psychiatrists, etc.
D. Full analytical index; cumulative index, v. 1–50 (1874–1919)
E. Orig. art.; Rev. art.; News; Bibl.; Bk. rev.
F. CLML; EM; PA; QCIM

19. ★JOURNAL OF NEUROLOGY, NEUROSURGERY AND PSYCHIATRY — v. 1, 1920
British Medical Association, Tavistock Sq., London, W.C.1. — Q. — $7.00 a year

A. British Medical Association
B. Psychiatrists, etc.
D. Full but general index
E. Orig. art.; Rev. art.; Bibl.; Bk. rev.; Cases
F. CLML; EM; PA; QCIM

20. JOURNAL OF PROJECTIVE TECHNIQUES — v. 1, 1936
609 W. 196 St., New York 34, N. Y. — Q. — $6.00 a year

A. Society for Projective Techniques and Rorschach Institute
B. In addition to psychiatrists, etc.: anthropologists; criminologists; educators; personnel-workers; social workers
D. Author index only; cumulative contents, v. 11–14 (1947–50) in v. 14
E. Orig. art.; Rev. art.; News; Bibl.; Bk. rev.; Cases
F. CLML; PA

21. JOURNAL OF PSYCHIATRIC SOCIAL WORK — v. 1, 1931
Columbia University Press, 2960 Broadway, New York 27, N. Y. — Q. — $4.00 a year

A. American Association of Psychiatric Social Workers
B. Psychiatric social workers
D. Brief index

E. Orig. art.; News; Abstr. (theses); Bibl.; Bk. rev.; Cases
F. CLML; PA

22. JOURNAL OF REHABILITATION — v. 1, 1935
1025 Vermont Ave., Washington 5, D. C. — Bi-M. — $2.00 a year

A. National Rehabilitation Association
B. Workers in all phases of rehabilitation
C. Rehabilitation, mental and physical; legislation
D. Appliance-dealers' directory; brief index
E. Orig. art.; News; Bk. rev.; Film rev.; Cases
F. CLML; PA; QCIM

23. MENTAL HYGIENE — v. 1, 1917
372–374 Broadway, Albany 7, N. Y. — Q. — $6.00 a year

A. National Association for Mental Health
B. In addition to psychiatrists, etc.: educators; sociologists; social workers; informed laity
C. Mental health, all aspects from that of the individual to that of the community
D. Regular listing of current books and articles; full but general index
E. Orig. art.; Rev. art.; News; Bibl.; Bk. rev.
F. CLML; EM; PA; QCIM

24. NERVOUS CHILD — v. 1, 1941
Child Care Publications, 30 West 58 St., New York 19, N. Y. — Q. — $7.00 a year

B. In addition to psychiatrists, etc.; child guidance workers; educators
C. Child psychiatry; mental health of children
D. Brief index
E. Orig. art.; News; Bibl.; Bk. rev.
F. CLML; EM; PA; QCIM

25. NEUROLOGY — v. 1, 1951
Lancet Publications, 84 South Tenth St., Minneapolis 3, Minn. — M. — $12.00 a year

A. American Academy of Neurology
B. Neurologists
D. Brief index
E. Orig. art.; Rev. art.; News; Bibl.; Bk. rev.
F. CLML; EM; PA; QCIM

26. PROCEEDINGS OF THE ROYAL SOCIETY OF MEDICINE — v. 1, 1907
SECTION OF PSYCHIATRY — $4.00 a year
SECTION OF NEUROLOGY — $4.00 a year
GENERAL INDEX — $3.10 a year

H. K. Kewis & Co., 136 Gower St., London, W.C.1
or: Grune & Stratton, 381 Fourth Ave., New York 16, N. Y. M. $19.00 a year (Complete)

B. Psychiatrists, etc.
D. Full but general index (to whole volume only)
E. Orig. art.
F. CLML; EM; QCIM

27. ★PROGRESS IN NEUROLOGY AND PSYCHIATRY v. 1, 1946
Grune & Stratton, 381 Fourth Ave., New York 16, N. Y. A. $10.00 a year

B. Psychiatrists, etc.
D. Full analytical index
E. Rev. art.; Bibl.
F. CLML; PA (in part)

28. ★PSYCHIATRIC QUARTERLY v. 1, 1927
State Hospitals Press, Utica 2, N. Y. Q. $6.00 a year

A. New York State Department of Mental Hygiene
B. In addition to psychiatrists, etc.: social workers
D. Full but general index
E. Orig. art.; Rev. art.; News; Bk. rev.
F. CLML; EM; PA; QCIM

29. PSYCHIATRIC QUARTERLY SUPPLEMENT v. 1, 1927
State Hospitals Press, Utica 2, N. Y. Semi-A. $3.00 a year

A. New York State Department of Mental Hygiene
B. In addition to psychiatrists, etc.: social workers
C. Psychiatry, including administrative and legislative aspects
D. Full but general index
E. Orig. art.; Rev. art.; News; Bk. rev.; Cases
F. CLML; EM; PA; QCIM

30. ★PSYCHIATRY: JOURNAL FOR THE STUDY OF INTERPERSONAL PROCESSES v. 1, 1938
1711 Rhode Island Ave., N. W., Washington 6, D. C. Q. $8.00 a year

A. William Alanson White Psychiatric Foundation
B. In addition to psychiatrists, etc.: educators; sociologists; anthropologists
C. Psychiatry; social psychology; sociology; anthropology
D. Brief index; cumulative index, v. 1–6 (1938–43) in v. 6
E. Orig. art.; Rev. art.; Bibl.; Bk. rev.
F. CLML; EM; PA; QCIM

31. ★PSYCHOANALYTIC QUARTERLY — v. 1, 1932
374 Broadway, Albany 7, N. Y. — Q. — $8.00 a year
or: 57 W. 57 St., New York 19, N. Y.

B. Psychiatrists, etc.
D. Abstracts of scientific papers of the New York Psychoanalytic Society; full analytical index
E. Orig. art.; News; Abstr.; Bibl.; Bk. rev.; Film rev.
F. CLML; EM; PA; QCIM

32. PSYCHOANALYTIC STUDY OF THE CHILD — v. 1, 1945
International Universities Press, 227 West 13 St., — $7.50 a year
New York 11, N. Y. — A. — (price varies)

B. In addition to psychiatrists, etc.: educators; social workers; informed laity
C. All aspects of psychological development from infancy through adolescence
D. No index
E. Orig. art.; Rev. art.; Cases
F. PA

33. ★PSYCHOLOGICAL ABSTRACTS — v. 1, 1927
1333 Sixteenth St., N. W., Washington 6, D. C. — M. — $8.00 a year

A. American Psychological Association
B. In addition to psychiatrists, etc.: educators; research workers in related fields
C. Psychology, including psychological aspects of the social sciences; psychiatry
D. List of journals searched; full analytical index
E. Abstr.; Bibl.; Film rev.

34. ★PSYCHOSOMATIC MEDICINE — v. 1, 1939
Paul B. Hoeber, 49 E. 33 Street, New York 16, N. Y.
Bi-M. — $7.50 a year

A. American Psychosomatic Society
B. In addition to psychiatrists, etc.: workers in medical and related professions
D. Full but general index
E. Orig. art.; News; Abstr.; Bibl.; Bk. rev.; Cases
F. CLML; EM; PA; QCIM

35. QUARTERLY JOURNAL OF STUDIES ON ALCOHOL — v. 1, 1940
Box 2162 Yale Station, New Haven, Conn. — Q. — $5.00 a year

B. In addition to psychiatrists, etc.: physicians; sociologists; informed laity
D. Full but general index
E. Orig. art.; Rev. art.; News; Abstr.; Bibl.; Bk. rev.
F. CLML; EM; PA; QCIM

36. ★RESEARCH PUBLICATIONS, ASSOCIATION FOR RESEARCH IN NERVOUS AND MENTAL DISEASES
[Proceedings of the Association] — v. 1, 1921 (Proc. 1920)

Williams & Wilkins, Mt. Royal & Guilford Avenues, Baltimore 2, Md. A. $12.00 a year*

B. Psychiatrists, etc.
D. Full analytical index
E. Orig. art.; Bibl.
F. CLML; EM; PA; QCIM

37. ★YEARBOOK OF NEUROLOGY AND PSYCHIATRY 1933
Yearbook Publishers, 304 So. Dearborn St., Chicago 4, Ill. A. $6.00 a year

B. Psychiatrists, etc.
D. Full analytical index
E. Rev. art.; Bibl.

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* 1952 price.

The Rorschach Test

By Sol Charen

Washington, D. C.

In 1951 and 1952, the *Current List of Medical Literature*, published by the Armed Forces Medical Library, listed under the heading "Projective Techniques" more articles about the Rorschach test than about all other types of tests. David Levy, a child psychiatrist, was first to introduce this test of personality to the United States when, in 1924, he went to Switzerland and studied under a colleague of Herman Rorschach, the Swiss physician and psychoanalyst who originated and developed the test. Radically unlike any personality test hitherto known to American psychologists, the Rorschach test spread rapidly in use with World War II giving great impetus as the need for increased psychological techniques developed. The test has continued to increase in popularity after the War, has influenced other psychological test theories, and by its theory has contributed to development of other similar tests. Today it is extensively used in psychiatric hospitals and mental hygiene clinics. In addition, the test has become an important tool in anthropological field studies and is used in schools to predict academic achievement.[1] (5) (6)

The Rorschach is properly classified as a projective test, but it will be easier to understand it if we refer to it as a personality test. Most people are familiar with the questionnaire type of personality tests which appears sometimes in popular magazines, where questions are to be answered with one word, either *yes* or *no*. Such tests deal with the presence or absence of certain personality traits in the person answering the question, and the score of questions answered in a specific way can be compared with a sample normal group which has also taken the test. In this manner the subject can determine whether he is like or unlike the so-called normal group which originally took the test. The faults in such tests, usually known as objective tests, deal with the opportunity for deceit, either deliberately or unconsciously, the inability to express all aspects of a personality trait when only a *yes* or *no* answer can be given, and the assumption that the sample group with which comparison is made is a normal group. The projective type of personality tests, on the other hand, deals with material which cannot be distorted, allows for complete descriptions of personality and its interaction, and permits comparison of the individual in terms of his specific socio-economic status in the community. Such projective tests

[1] Other uses are to be found in the bibliography given by Bruno Klopfer in his book, *The Rorschach Technique.* (4)

present vague material which seems to bear little or no relationship to personality characteristics. The manner in which the individual organizes this vague material (inkblots, drawings, story tellings) can be interpreted in terms of the theories established by Herman Rorschach, who was first to discover through investigation of responses given to inkblots that such responses could furnish a personality picture of the person who gave them. The term projective signifies literally a projection of personality onto vaguely defined test material so that the final result bears the impression of the personality traits.

The Rorschach test, also known as the Inkblot test, consists of ten white cards, 7″ by 9¾″, on each of which is printed an inkblot. The person taking the test states what the inkblot seems to resemble as he is handed the cards one by one. Inkblot pictures of animals, people, flowers, in fact every conceivable kind of object and some which seem to be creations of imagination as well as of the world about us, are seen. The research done by Rorschach and his followers and students shows that the images selected and the manner of visualizing them are unique to the personality of the individual person who takes the test. By means of Rorschach's technique these images can be scored objectively and interpreted to furnish a picture of the individual's psychological tendencies in his relationships to himself and to others in his social environment.

The Rorschach test reveals many aspects of personality, the inner assets and weaknesses, emotional reactions and methods of controlling them, ways in which thinking is organized, ways in which the individual sees himself and imagines others see him, and whether he is tense in his social relations—to name but a few of the personality aspects. Comparisons can be made with others in his socio-economic culture group and peculiarities can be noted. Primarily the test is of interest to psychiatrists who are interested in knowing all about a patient. Much the same type of information about personality could be gotten from psychiatric interviews; the Rorschach, however, in one testing session obtains information that ordinarily might take from six months to two years of psychiatric investigation.

The ten inkblot cards seem to have been made by dropping ink or coloring matter on a white sheet which was then folded and creased so that the blot spread in a symmetrical matching of each side. Piotrowski states (7) that although made accidentally, the ten blots used by Rorschach were carefully selected from thousands with which he originally experimented. He chose blots that elicited the greatest number and variety of images. The order of the blot presentation is standardized and follows the results of Rorschach's experience that from the order presented the greatest variety of stimulation is possible. Five of the blots are of grey-black ink, two have black and red colors, while the remaining three are multi-colored and devoid of black or grey.

The following brief description of each of the Rorschach plates may be of

interest. Plate I is black and grey with four centered white spaces and crudely resembles a bat or winged animal. Plate II has two black figures faintly stippled with red. The figures are joined at the bottom center by a brilliant red splash of color, have a white space separating them in the middle, are connected at the top and capped individually in red. The whole inkblot very much resembles two clowns playing patty-cake. On Plate III, one gets the impression of two human figures in black with a large red bow between them and a red splash in each upper corner. Plate IV is again all black with tones of grey shading. White spaces at the bottom separate what looks like an animal's head from two enormous boots. People may see it as an animal or animal skin, sometimes as an ape-like monster. The blackest and most like a life-like object is Plate V which resembles a butterfly or bat. Plate VI has delicate shadings of grey with an elongated projection at the top. This, like Plate IV, is sometimes seen as a furry skin. Plate VII is horseshoe-shaped and upside down looks like two dancing women.

The last three cards are all in color without any black or grey. Plate VIII is blue, green, red, and orange from the top down and at each side appears what seems to be an animal. Each color is separated by white spaces although all areas are connected by bridges of color. Plate IX has a red base, green surmounting it, and is topped by orange. Separating the green and orange is a bluish white haze. Plate X is a riot of color, all separated yet joined or linked so that the white interlaces.

Rorschach stated that the test is not one which requires or tests imagination; rather, in seeing or in perception of the inkblot, associations or memories are aroused in the mind which the subject attempts to match with the inkblot. The association chosen is one which he thinks is similar with the blot. Rorschach uses the term "apperception" to describe the three-fold process of perceiving, recalling, and matching. The knowledge that such a process is not due to chance, but related to the basic personality of the perceiver is the contribution which Rorschach made to psychology and psychiatry. In a series of careful experiments, using both normal people and psychiatric patients, he was able to discover the personality traits which were measured by the responses to the inkblots. (8)

Leonardo da Vinci (1452–1519) was apparently the first to realize there might be a similarity between inkblot responses and personality. He had his pupils compose paintings while they looked at ambiguous visual forms. Da Vinci was struck by the fact that each painter revealed personal traits in the figures which were drawn. Piotrowski (7) believes that Rorschach was familiar with this research, since his father was an art teacher and Rorschach was intensely interested in art. Whether others influenced Rorschach is not known. Binet, the founder of intelligence tests, mentioned the use of inkblots in 1895 as a means of measuring passive imagination and his suggestions resulted in research by

Dearborn in this country in 1898 among others. They found that the occupation, habits of living, environment, and degree of mental stability seemed to contribute to the types of responses given by subjects. (4)

Rorschach's wife stated he became interested in the problem in 1910 when a classmate who was teaching used inkblots to stimulate the interest of his pupils in creative writing. Rorschach was impressed by the variety of responses the pupils gave to the same blot. Several years later he began the research on the inkblot which terminated ten years later at his death. (7)

Rorschach was born on November 8, 1884, in Zurich, Switzerland, the son of an art teacher. He inherited a love of art, drew well, and was intensely interested in visual sensations as revealed by the nature of his research in later years. Because of his father's death he studied medicine to earn a living, going to school in Nuenberg, Zurich, Berne, and Berlin. He qualified as a doctor in 1910. Originally he had been interested in psychotic hallucinations, then the psychological sources of religion, finally the study of inkblots. As a psychiatrist and psychoanalyst, he worked at several mental hospitals in Switzerland. Research on the psychiatric patients available to him made it possible for him to validate some of his theories about the inkblot responses. These patients had exaggerated personality traits in comparison with the normal individual, so that Rorschach found it easier, for example, to prove that use of color must be a measure of impulsivity or of affective reactions, since patients having such strong emotional characteristics were found to use responses which involved color. By means of controls and checks with other types of patients he was finally able to establish sufficient conclusions to publish a monograph in 1921 which dealt with his investigations on the inkblot test. The monograph, *Psychodiagnostik*, (8) and an article published posthumously are all that is available by him on this test. He died suddenly on April 2, 1922, at the age of 37 of appendicitis complicated by peritonitis.

Little as he published, his contributions resulted in a tremendous impetus to the use of his test and later to the creation of tests based on his ideas. Unfortunately the gaps in his system and his untimely death have resulted in the many schools of Rorschach which exist today. After David Levy returned to the United States, Dr. Samuel Beck went to Switzerland to study under Dr. Oberholzer, Rorschach's colleague, and in 1928 Beck wrote the first American doctoral dissertation on the Rorschach method. Beck is now the head of a school of Rorschach philosophy which claims to hold rigidly to the principles established by Rorschach. Bruno Klopfer, at present at the University of Southern California, developed an elaborate system of scoring and interpreting which is unlike that of Beck. Working independently of the European influence, Dr. Marguerite Hertz, of the Brush Foundation in Cleveland, Ohio, developed her own system and theory and has published much on her research. Piotrowski and Rapaport are others who have modified Rorschach's original work.

Despite the theoretical differences which exist, it is amazing that so little difference is found in the final results or interpretation. Dr. Hertz tested a subject and sent the record of his responses to both Dr. Beck and Dr. Klopfer. She was the only one of the three who had seen the patient, although she knew little more about him than the responses he gave her in the testing situation. Despite differences in the scoring of all three experts, their final interpretations of the behavioral characteristics of the patient, of his personality, were in substantial agreement. (3)

The presence of only one journal in this general field, *Journal of Projective Techniques*, one professional society, Society for Projective Techniques and Rorschach Institute, Inc., and a single group of people contributing to the journal and belonging to the society shows that the differences are not too serious. In March, 1949, an International Rorschach Conference was held in Zurich, Switzerland, and Rorschach workers from all over the world met, read papers, and established plans for a permanent International Rorschach Society. (2)

A brief explanation of the Rorschach method may be of interest; those interested in greater detail are referred to some of the books listed at the end of the article. (1)(4)(8) Four major elements can be scored for every response given by the subject. The first one is the location of the response or determination of the area of the inkblot used. The second considers the manner in which the response was seen, whether color or shading was used, or form only, or if movement of the object was present in the mind. The third deals with the classification of the response into categories such as animals, humans, science, etc, while the fourth deals with the originality of the response or its commonness.

Use of the whole inkblot is difficult since good associations to the total area are relatively rare. The subject must have both the desire to do what is difficult and a variety of good associations. The tendency to use the whole inkblot thus measures ability to use abstract thinking and to have many associations. Since it is possible to give very superficial images to the whole inkblot, use of the whole inkblot may measure a range of intellectual energy from that of the most intelligent to that of the seeming empty display of effort.

It is easier to give responses to parts of the inkblot which stand out, because of contrast due to shading or color, from neighboring areas. Use of such obvious areas is associated with thinking which is practical, concrete, characterized as "common sense." Finally there are tiny areas which are usually ignored. Excessive attention to these is characteristic of the fussy, over-meticulous type of mind. Finally there are the white spaces in the middle of most of the blots. Using these as foreground instead of background is associated with such personality factors as stubbornness, negativism, or suspiciousness, depending on the total personality structure.

The ratio of each type of area chosen to the others is important as a measure

of the degree of abstract, practical, and specific thinking which exists in the subject.

Seeing an area as resembling something because it has the shape of the thing is similar to the process of perception itself. This, then, is an intellectual process, and the seeing of such form is a measure of the ability of the subject to have clear mental images, to know the reality of his environment. Sensitivity to the nuances of shading reflects an alertness to specificity which marks the person who is more sensitive and aware of his environment. Those who see the shading nuances of grey, black, and blends are displaying an alertness, caution, and sensitivity which corresponds, again in terms of the total personality picture, to overwhelming anxiety at the one extreme (which leaves the person over-alert to every threat in his social environment), and at the other extreme to the tact and sincerity of the person sensitive to others. Then, as stated previously, the attraction to and use of color corresponds to impulsivity and emotionality in the individual. Finally the projection of activity into those associations of persons reflects the subject's concept of himself and of others. The fact that two people can look at the same inkblot and one see a slumped figure while the other sees it as engaged in vigorous activity gives a good picture of the potential behavior of each. Similar aspects of personality, but on a more immature level, are measured by the seeing of animals engaged in activity or in seeing areas of the card moved by inanimate forces. An example of the latter is seeing wind blowing leaves off a tree, in response perhaps to Plate X.

The third element scored is merely a categorizing of the associations seen. Since animals are the most common association given, the percentage of this category is a measure of the stereotypy of thinking. Other categories of associations may give clues to interests, hobbies, and complexes.

Finally the use of original or unusual responses is a reflection of the peculiarities of the individual. The ability also to see the most common concepts given by others in the same culture is a measure of the person's ability to think as others do in his culture.

The interdependence of all these scoring elements must be considered in interpretation of any record. Personality is the result of the interaction of many factors in the individual. The Rorschach test lists only a few of these factors. The tester, in terms of his knowledge of human behavior, must know how to integrate them to present a total picture of the individual. To the genius of Herman Rorschach is due the appreciation of modern day psychiatry that a diagnostic tool is available by which personality can be evaluated quickly and objectively.

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The Use of Visual Media for Better Public Relations in a Medical Library*

By Elizabeth Webb Cooper

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ALL of you will agree with me, I'm sure, that the ideal public relations would exist in any library in which the librarian could greet each newcomer and conduct him on a personal tour of the library, showing him where everything is located and explaining the details of such important features as the card catalog, the indexes, and the special collections. Since such an idealistic state can never exist in a library of any appreciable size, we must find every possible means of extending the personal touch of the librarian so that each newcomer will receive an introduction to the library which will give him a feeling of being at home within its walls. Of course, it is possible that a borrower might feel too much at home at times and adopt an attitude of possessiveness towards some of the contents of the library, but we must accept that risk if we wish to achieve our purpose of ideal public relations.

One of the most obvious and effective, though often the most neglected, means of extending the librarian's personal touch so that it may be felt by all who enter the library is through the use of visual media. If the librarian does not have time to conduct each newcomer personally through the library, some method of introduction must be substituted by which he may easily find his way alone. Visual media offers the best system for achieving this replacement.

The first step in accomplishing adequate orientation through visual means is to point out to the newcomer the physical arrangement of the library. If the library is located on several floors of a building and the various rooms are scattered, a directory is necessary. When the library rooms are consolidated into a smaller space, a map which shows a detailed floor-plan is sufficient. The map need not be a professional one. A rough draft, provided it is accurate and clear enough for the patrons to read it with ease, serves the purpose adequately and has the additional advantage that it may be changed easily in case there is an alteration in the arrangement of the library. Although the map may be rough, it must be kept up-to-date. A map which is misleading not only defeats its purpose, but arouses antagonism in the patrons whom it misdirects.

* A condensation of a talk presented at the Southern Regional Group Meeting of the Medical Library Association, Birmingham, Alabama, January 30–31, 1953.

In our Library we have two maps, one of each floor, which are placed at the entrance to the Reading Room where they will be seen at once as the patron enters the door. These maps make it easy for a newcomer to find his way about without continually asking for guidance. They are also a definite help to the doctors who use the Reading Room during the hours when the Library is closed with no attendant to act as a guide. The use of various colors to indicate the location of current periodicals, bound periodicals, circulating books, reserve books, reference books, and special collections clearly shows the position of all important materials in the Library. The addition of color also adds to the attractiveness of the maps and changes an item which would otherwise be a drab tool into a functional decoration.

A copy of each room on the maps is placed at the entrance to the room itself so that if the patron becomes confused about the location of the item he is seeking he may refer to the floor plan on the spot instead of having to go back to the Reading Room to regain his bearings.

Maps alone do not offer sufficient guidance in showing the newcomer the arrangement of the library. It is important also that the stacks and shelves be clearly marked so that the book or journal for which the patron is looking may be easily found. In case there is an illogical break in the shelving sequence this should be marked by the use of a dummy volume labeled with directions for following the continuation of the sequence.

All of this is so obvious that it might seem unnecessary to mention it, but patrons often place inestimable importance upon details which librarians regard as insignificant. The patron is prone to judge the efficiency of the library by his ability to find things, not upon how quickly and easily the librarian can find them. It is doubly important, therefore, that we make it as easy as possible for our patrons to find what they want for themselves. It makes them feel that the library is an efficient one and also saves the librarian's time.

The second step in orientation through visual media is to acquaint the newcomer with the uninviting sphere of library rules and regulations. The most innocuous method of accomplishing this is through the use of a handbook. This should include the hours of opening, the rules for the circulation of material, and other important information concerning the library. Upon examination of our *Handbook* you will see that this brochure meets Mr. Wesley Draper's specifications. It "contains all pertinent information about the Library in a short, attractive form."[1]

The third step, to explain the use of the chief tools of the library, the card catalog, the medical and dental indexes, and the special collections is not so easily accomplished without the personal touch of the librarian. But this too may be done through the use of visual media. During the student orientation

[1] Draper, Wesley. Publicity for the medical society library. BULLETIN, 41: 55, January, 1953.

period in our Library a chart which exhibits enlarged pictures of the main types of catalog cards with a detailed explanation of each is placed above our card catalog. This makes it easy for each newcomer to understand our system of cataloging and transfers the forbidding strangeness of the catalog to a more friendly status for our new patrons.

A similar method of visual media is used in explaining the medical and dental indexes. In this case, the pictures with their explanations have been mounted in the form of a booklet which is kept on the index table where it is readily available to those who need instruction.

The fourth step, though placed last in this sequence, is of equal importance with the other three: to offer instruction and inspiration through the use of pictures, displays, and exhibits. Our Picture Collection, which thanks to our many benefactors has grown to be an extensive one, is a great asset in accomplishing this step. By continual use of its resources we are attempting to give our patrons a feeling of being at home, not only in the library, but also in the realm of medical and dental history. Through an everyday familiarity with the forefathers of medicine the student will attain a deep appreciation of the rich heritage of his profession. To achieve this purpose we have used every available space on the walls of our Library to hang as many of our pictures as possible. We encourage our faculty to borrow framed pictures from our Collection to hang on the walls of their offices and laboratories. The other pictures are classified so that they may be easily found and used in various ways, as illustrations for lectures, in departmental displays, and, of course, in our Library displays and exhibits.

This brings us to one of the most important phases of visual media, that of displays and exhibits. Mr. Tom Jones regards the modern teaching exhibit as "the most perfect single expression of visual media." He says, "Within its limitations of time and space, it is probably the best device which man has invented to communicate facts and ideas."[2] Certainly such a channel of communication should not be neglected by librarians when it can be made to serve their libraries in so many ways.

The interest which the doctors and students never fail to show when we put up a new display or exhibit creates a feeling of friendliness between them and the members of the Library Staff. It also attracts their attention to materials in the Library about which they may have been ignorant and stimulates them to make contributions to the Library's resources.

The interest of our patrons in new exhibits has become so great that I'm afraid we are going to have to put the exhibits up during the hours when the Library is closed. It is very difficult to put up an exhibit when there are six or eight people around you picking up various things and reading through the articles you are trying to arrange.

[2] Jones, Tom. Visual media and the medical library. BULLETIN, 35: 327, October, 1947.

Displays and exhibits do not have to be elaborate to be effective, and it is no longer necessary, as Miss Naylor stated in 1942, "to have someone on your staff with a knack for this sort of thing."[3] The time-saving devices on the market today eliminate the requirements of talent and skill in the preparation of a good display or exhibit. With the use of a Peg Board and a set of Mitten letters anyone can put up a presentable display in a very short time. And it requires only a little imagination, a touch of color, and a sense of proportion to turn out an exhibit which is quite professional in appearance.

Library displays and exhibits should be accurate, but this is not an unbreakable rule. There are times when a mistake adds to the effectiveness of an exhibit. Patrons take great delight in discovering that the library has made a mistake, however small it may be. It gives them so much pleasure to detect an error that it is almost worth-while to make one deliberately in order to create the personal interest they take in making the correction.

A little touch of humor in displays and exhibits is another sly device which can be used to increase the attitude of friendliness between the library staff and its patrons. We have found that the use of cartoons and similar humorous material stimulates a great deal of interest among our patrons.

Parading the library's possessions and instructing its users should not be the only purposes of displays. The use of carefully prepared displays and exhibits on activities taking place in the Medical School, the Hospital, and the entire Medical Center helps to establish and maintain the Library's position as the hub of the medical center.[4] The advertisement of special meetings, lectures, and similar activities offers excellent opportunities for the library to display its materials relating to these activities. It also creates interest in the Library among all the people connected with these activities.

At present we have in the corridor outside the Reading Room a display which was prepared for a recent national meeting of the Phi Beta Pi Medical Fraternity. We had intended taking it down as soon as the meeting was over, but it aroused so much interest in the entire school that we were requested to leave it up a while longer.

Our current display on the Peg Board at the entrance to the Reading Room publicizes the visit of Dr. René Jules Dubos to our Medical School. This event of such great interest to everyone in the Medical Center presented the perfect occasion for the Library to exhibit its books and journal articles written by Dr. Dubos. The use of portraits of Dr. Dubos and Pasteur has proved to be a good eye-catcher, and the inclusion of the schedule of meetings and lectures to be held has added much interest to the display. On the other side of the Peg

[3] Naylor, Mildred V. How to advertise your library. BULLETIN, 30: 328, July, 1942.

[4] Crowe, Mildred R. The Medical College of Alabama Library: A Five Year Report. Birmingham, Alabama, 1951.

Board we have posted notices about coming medical meetings and similar items of interest to our patrons.

This completes the four steps of orientation in the library through the use of visual media. The librarian who understands the importance of each of these steps and exerts every effort to extend a personal touch through their use should attain a feeling of great satisfaction. The new doctor, or embryo doctor, coming into the library and seeing the maps to guide him, the handbook to instruct him in the rules and inform him of the organization of the library, the chart to explain the card catalog, the booklets to show him how to use the indexes and the special collections, and the pictures and exhibits to enlighten and inspire him, must certainly feel at home in the library. He must also feel that the librarian has his interest at heart and has provided for him a pleasant place to study where he has the medical literature of the world at his finger tips.

Symposium on Three Types of Medical Libraries*

I. A University Medical Library

By Miss I. B. Jones, M.A., A.L.A.

Assistant Librarian, Liverpool University
Liverpool, England

THIS morning you had an opportunity of seeing the Medical Library of the University in its present state, but you will readily understand that it was not always housed in such pleasant surroundings. It had its beginnings in the eighteen eighties when it shared a building, now the Gynaecological and Obstetrical Museum, with the Medical Common Room and Dissecting Room. It grew steadily as the University expanded and by the 1920's it had developed into a large main collection, transferred by this time to the basement of the Johnstone Laboratories, with several smaller departmental libraries.

The most important dates in the more recent history of the Medical Library are 1928 and 1938. In 1928 most of the various departmental libraries were amalgamated with the main collection and thus a centralized Medical Library came into being. There were, however, three departmental libraries which resisted amalgamation, and these still exist. The Gynaecology Library is a small collection of out-of-date and really quite useless books, but the Biochemistry Library and the Dental School Library are up-to-date collections, and remain in the departments simply because the heads of these departments are reluctant to part with them. Each is looked after by the professor's secretary under my supervision.

This amalgamation was accomplished by my predecessor, and when I became Medical Sub-Librarian I found that there were three main tasks awaiting me. These were the completion of a shelf-list, the overhaul of the catalogue, and the reclassification of the book stock.

I inherited a shelf list on cards which my predecessor had half completed. Before this there had been some very inadequate lists on sheets of foolscap paper, but it was difficult to add to them, and indeed almost impossible to read them. My first task was, therefore, to complete the new shelf list.

I soon discovered that only about half the book stock was catalogued. There were also dozens of cupboards bursting with uncatalogued serial publications,

* Held at the First Week-End Conference of the Medical Section of the Library Association, Liverpool, 29th March 1952.

reports of societies, etc., and to crown everything the boiler house of the Medical School was full of packing cases which had never been investigated. Before tackling this job I had to invest in tins of Keating's powder in order to get rid of the cockroaches! I then proceeded to catalogue the arrears.

These two tasks were about completed by the session which I have already mentioned as the second important year in the development of the Medical Library. In the long vacation of 1938 we moved into our new building, the Harold Cohen Library, and the three months prior to moving were occupied in tackling the third urgent need in the re-organization of the Medical Library, the reclassification of the stock.

Under the old regime the books had a fixed location within extremely broad classes corresponding to the various departments of the Medical School, one bookcase being given over to each class. The reclassification of the Medical Library was organised by Mr. Povey, who had recently been appointed University Librarian. The scheme adopted was, as in other sections of the Library, his own scheme, based on that of the Library of Congress but using only very broad classes and cutting out minute subdivisions. You will realise how broad it is when I tell you that for Class S (that is, Medical and Veterinary books and journals) we use at present only 117 numbers. We can, however, if and when we wish, expand to 999 numbers. You may think that such broad classification is little better than no classification at all, but its justification is firstly that it was essential to classify a large number of books in a very short time, and secondly that it has worked very well in practice. When the day of removal came, we had all the medical stock reclassified, labelled, and pressmarked, ready to fit into its place in the new library.

You will have seen, during your inspection of the Harold Cohen Library, that the Medical Section is housed partly in the North Room, which is used as a medical reading room, and partly in the stack. The North Room contains a selection of about 3,700 volumes, consisting of bibliographical works, the most used textbooks, the last ten years of the most used journals, and the current unbound volume of as many journals as we could fit in. The classification symbols used for them differ from those of the general scheme. They comprise the numbers 900 to 999 with no preceding letter, but the actual arrangement of classes, although these are even broader in nature, is the same as that of the general classification. The rest of the medical collection is in the stack and in the general current periodicals room. At the end of each session we have a removal of the year's journals and of out-of-date or little used books from the North Room into the stack, and they are then reclassified according to the general scheme. Of course this also involves altering the pressmarks in the catalogue.

The removal to the Harold Cohen Library naturally made some changes in my daily routine. For instance, it was no longer necessary to keep a separate

record of the receipt of current journals, and the cutting of these journals was now done by a junior assistant. New medical accessions had always been catalogued centrally in the main University Library, but the cataloguing and classification of new medical books and journals now became my responsibility.

In most respects the Medical Section continued, as it still does, to function as a departmental library. We retain our own file of loan vouchers and deal with the binding and repair of our own books and periodicals.

We continue to receive our yearly Faculty allocation from the main library grant, and it may interest you to know something of our procedure. In the Lent term the University Librarian inquires what sum the Faculty considers it will need to cover expenditure on books, periodicals, and binding of periodicals in the session beginning the following October. This recommendation is considered by the Faculty Library Committee, which consists of about eight medical professors, including the Professor of Dental Surgery and a representative of the School of Tropical Medicine. I attend all meetings of this Committee by invitation. A figure is reached on the basis of current expenditure and foreseeable future development during the next session. It does not, of course, follow that the Faculty will get the sum it requests; but in fact, during the past quinquennium our requirements have always been met. As to the next quinquennium, the outlook is rather more doubtful.

However, at the beginning of the new session the University Librarian informs the Dean of the Faculty of Medicine, and of course myself, what our allocation actually is, and that out of this sum certain amounts have already been set aside for (A) current subscriptions to journals and works in progress, (B) binding and repairs. The remainder is placed in the Medical Faculty Book Account. This session, out of a grant of £1,535 we spent £698 on current subscriptions, £188 on binding and repairs, leaving £649 in the Faculty Book Account.

The Dean then summons a further meeting of the Medical Faculty Library Committee. Before the meeting I send a circular letter to all heads of departments asking for their individual recommendations, and in addition I prepare a list of latest editions of standard textbooks, a list of readers' suggestions, and of any new publications, particularly in the field of medical history, which I myself have noted. Each item on these lists is separately considered by the Committee.

In the case of new subscriptions to journals particularly, I confer with the Librarians of the Medical Institution and the School of Tropical Medicine respectively, so that we may avoid duplication and expend our funds to the best advantage. In the case of journals of a general nature, it is of course necessary for all three libraries to subscribe individually, but on the whole a purely clinical journal is usually more useful in the Medical Institution, while the

University Medical Section is especially strong in anatomical, physiological, biochemical, and pathological journals.

Our periodicals department issues a printed list of current journals covering those taken by all the University Libraries, the Tropical School, the Medical Institution, and the Public Libraries. This list is kept up-to-date by manuscript additions, and is at present in its second edition. A copy may be purchased for 1s., which will cover a supplement to be issued in the next few months.

When considering new subscriptions to journals, our policy is either to start with the current volume or to purchase volumes for the last five years in addition. We rarely go back further than five years. We provide one copy only of the latest edition of standard textbooks for the use of students, and these new editions go into a locked case and are issued for consultation only, within the library, and on receipt of a signed voucher. As each is superseded by a new edition, the ex-current edition is put on the open shelves and is then available for borrowing. Most of the Faculty Book Account is spent on monographs for purposes of research.

The Medical Faculty Library Committee meets two or three times each session and more frequently if any important matter comes to hand. At the first meeting of the session £50 is set aside to be spent between committees, at the Dean's discretion, on any urgent books requested by me, such as a new edition of a standard textbook, or on a work which is wanted immediately by a head of a department.

The Medical Sub-Librarian has always been responsible for the veterinary journals and textbooks in the main library, and since 1942 I have also administered the library of the Veterinary Field Station at Leahurst in Cheshire, which was established in that year. The Board of Veterinary Studies has recently been granted the status of a Faculty and it has its own separate grant and Library Committee. In essentials the procedure followed is the same as that of the Faculty of Medicine. I have not gone into details about the daily routine of the Medical Section as this does not differ from general University Library practice.

Since 1945, when I became head of the central Cataloguing Department, I have had an assistant in the Medical Section who is on duty in the North Room and deals with readers' queries and the daily routine. However, one special point in this routine may interest you. Many current journals are circulated among the departments interested before they are put out on the shelves for general readers. This is greatly appreciated by the medical staff, but has the disadvantage that the general reader does not see a current periodical until it is several weeks old. But periodicals of a general nature which are most likely to be of interest to students are not included in this scheme.

In conclusion, I should like to say how much I appreciate the co-operation

and courtesy of my fellow-librarians, Miss Phillips of the School of Tropical Medicine and Mr. Lee of the Medical Institution. We maintain quite an extensive private inter-library loan system, and I am sometimes afraid that in the case of the Medical Institution in particular, the advantage is very much on our side.

II. Medical Society Libraries

By W. A. Lee, A.L.A.

Resident Librarian, Liverpool Medical Institution
Liverpool, England

It falls to my lot in this series of short papers to say something about medical libraries which were founded in connection with medical societies and have maintained their independence, and I shall, naturally, refer quite a lot to the Library of the Liverpool Medical Institution.

I feel that the approach to my subject must be an historical one, and therefore it is necessary for us to cast our minds back for a few moments to the latter part of the eighteenth century. At that time there was evidence of a desire to improve the standard of medical education in this country. This became apparent in various centers, and may be regarded as the first step towards organised postgraduate teaching. In many cities and towns of Great Britain medical men began to get together in groups to discuss their problems and pool their ideas. In some instances these medical societies were formed as student bodies, as, for example, the Royal Medical Society of Edinburgh, founded as early as 1737. In Liverpool, the medical library was the forerunner of the medical society.

The exact date of the establishment of the medical library in Liverpool is not known. It must, however, have been between 1770 and 1779, for at the latter date membership of the library was opened to the profession generally, and one of the men known to be a founder of the library was appointed Surgeon to the Infirmary in 1770.

Thus, we may assume that the library was founded about the same time that the Medical Society of London was inaugurated, through the efforts of Dr. Lettsom, in 1773.

There is a statement, issued in 1808, and signed by Mr. Henry Park, to the effect that the Liverpool Medical Library was founded by Mr. John Lyon, Mr. Henry Park, and Mr. Edward Alanson, Surgeons to the Liverpool Infirmary. This statement contains the information that "the original arrangement was to purchase the new publications conjointly, and to divide the books at the end of each year, to avoid the expense of each buying separately many which were not worth a second perusal." However, before any books were purchased under this plan, other members of the staff of the Infirmary ex-

pressed a desire to join in the scheme, and it was proposed that the books be not divided amongst the subscribers but deposited in the Infirmary, in hopes, says Park, "that by that means the foundation might be laid of a medical library which might in time become an object of public utility."

The Aberdeen Medico-Chirurgical Society was founded in 1789, and its library established in 1791, while the Medico-Chirurgical Society of London followed in 1805. Many other societies sprang up about this time, the formation of a library being a prominent activity of several of them. Unfortunately, however, several of these collections have been dispersed, while others have been neglected and never developed.

The fate of the libraries of these medical societies depended on the degree of enthusiasm with which successive generations of members carried on the hopes and aspirations of their founders. In Liverpool we have cause to be grateful for the far-sightedness and tenacity of purpose displayed by Dr. John Rutter, who was a member of the medical library at an early age, became its President in 1826 and 1834, and was personally responsible for the project which culminated in the establishment of the building in which we met last night, the Liverpool Medical Institution.

A brief account of the early history of this library may be quoted as typical of the vicissitudes of other similar foundations. I have already mentioned Park's statement regarding the formation of the medical library. At first, membership was confined to the Physicians and Surgeons of the Infirmary, then the Physicians and Surgeons attached to the Dispensary expressed a wish to unite in the scheme. After this arrangement had been carried on for some years, says Park, "such a collection was made as began to attract the attention of some of the other practitioners of the town, some of whom began to complain of the monopolising disposition of the medical officers of the charities engrossing every source of information to themselves."

As a result of these protests, a meeting of "Gentlemen of the Faculty attending the Publick Infirmary and Dispensary of Liverpool" was held at the Union Coffee House, in Mount Pleasant. At this meeting, held on October 7, 1779, it was resolved "That a Medical Library be instituted by subscription, under the name of the Liverpool Medical Library, to the advantages of which the gentlemen of this town and neighbourhood who choose to subscribe shall be admitted, but no person of a different profession." The subscription was fixed at half-a-guinea a year.

Until about 1801 the books were kept at the Infirmary, when there was an agitation to remove them to the Dispensary. This was successful, but in 1807 the books were taken back to the Infirmary, and accommodated in a room specially built for the purpose by the Trustees of the Infirmary. The Infirmary then stood on the site now occupied by St. George's Hall, at the north end of Lime Street. When the Infirmary was pulled down in 1826, the Town Council

of Liverpool generously provided a building for the Library which consisted of "two spacious and commodious rooms" on the site of the present Lime Street Station.

In 1832 these premises were pulled down to make way for the building of the railway station, and for the next five years the Library was housed in temporary premises in various parts of the city. Dr. John Rutter was determined that the Library should have a permanent home in a suitable building, and envisaged, as he stated in a letter to a colleague, "a building which would suffice for every purpose for which it could be required by the profession at large; that is, in the first place for a library, and secondly for all meetings of the profession, for medical lectures, or the meetings of medical societies, with a Committee Room annexed to it, with a convenient residence for a Librarian." You will be interested to note Rutter's insistence on the medical library as the principal occupant of the projected building, and that he did not overlook the desirability of appointing a Librarian to reside on the premises and have the responsibility of caring for the books.

In 1835 Rutter obtained from the Corporation the lease of a piece of land at the corner of Hope Street and Mount Pleasant, for 75 years at a peppercorn rental. He then set about raising funds for erecting a building, and succeeded in raising some £4,000, of which £1,000 was donated by the Corporation. The building was opened by Rutter on May 31, 1837, and the library accommodated therein.

In the meantime, members of the Library had been in the habit of holding discussions on Saturday evenings in the Library Room when it was situated in Lime Street, and in 1833 a Medical Society was formed. The Society held its meetings in the Royal Institution in Colquitt Street, and continued to do so for a year or two after the Medical Institution Building was opened.

For some years the finances of the Institution were in a precarious state; this was doubtless due in some measure to the peculiar situation which had arisen. There were three distinct bodies: the Trustees of the Building, the Committee of the Medical Library, and the Committee of the Medical Society; and they seem to have found it hard to agree! The Librarian is recorded as having reported to his Committee in 1839 that the Trustees had given instructions that the supply of gas to the Library was to be cut off and that no more coals were to be supplied to the Library or Committee Room.

With the passage of time, however, the difficulties caused by different Committees being concerned with the Institution were solved, and in 1840 the Trustees of the Building, the Library Committee, and the Medical Society were united as "The Liverpool Medical Association," the title being changed to "The Liverpool Medical Institution" a year later.

In the early days, the office of Librarian was held by one of the Members of the Library, free use of the books and a small honorarium being granted in

return for such services, but when the Library came to be opened for several hours each day, a paid Librarian seems to have been employed. The Minute Books contain many references to the office of Librarian, but few details are given. In 1822 the minutes record "That the Librarian, having applied for leave of absence, it be granted him for three weeks, on condition that his father attend for him during his absence." A Mr. Dilworth was appointed in 1823 at a salary of £10 per annum, but he evidently did not attend to his duties regularly, for on June 14, 1824, the President reported to the Committee a conversation with the Librarian concerning his non-attendance in the Library, and stated that he (the Librarian) had made arrangements which would enable him to attend more regularly. In 1829 the Library was ordered to be kept open from 10 to 12:30 in the morning and from 7 to 9 in the evening, and the Librarian's salary was increased to £20 a year. The following year it is recorded that "In consequence of complaints of the Librarian absenting himself from the Library during the period of its being open for the benefit of subscribers, upon the plea of delivering notes to those members who have retained books beyond the period allowed, it was resolved that in future no subscriber retain the books beyond the time specified under a penalty of two-pence per day for each volume." However, Mr. Dilworth continued to absent himself, and in 1833 it was resolved "That a book be kept on the Library table, for members to note the absence of the Librarian, or other occurrences which they may deem worthy of the attention of the Committee." Even this did not improve matters, and a long-suffering Committee dispensed with the services of Mr. Dilworth in 1835.

A Mr. Mitchell was next appointed, and when the new house adjoining the Institution was ready for occupation, he was asked to reside there. This he refused to do unless his salary was increased to £40 per annum. A succession of Librarians are recorded in the Minute books until 1880 when Mr. William Jones was appointed and held office for 44 years. He was succeeded by Mr. G. F. Home, and I was appointed in 1929.

When the Library was founded, and for many years afterwards, the members interested themselves in many subjects other than medicine and surgery. The obvious limitations of these in the eighteenth and early part of the nineteenth centuries would account for this; many diseases were very imperfectly understood and their treatment largely empirical, while surgery was confined to crude operations on the extremities. Therefore it is usual to find that libraries founded by medical societies about that period contain works on a multitude of scientific subjects. The Library of the Medical Institution includes a large number of works on chemistry, mineralogy, natural history, and the like.

LeFanu's *List of Medical Libraries and Information Bureaux in the British Isles* includes some seven London and eleven provincial libraries which can properly be included in the title of "Medical Society Libraries." The majority

of them are small collections intended for the use of a limited number of members, but there are a few which can justly be designated as being of national as well as local importance. The Royal Society of Medicine Library is, of course, the largest, while the Medical Society of London possesses a remarkably fine collection of historical works, including a number of Greek manuscripts. The Library of the British Medical Association is expanding at a rapid rate, and now possesses a very comprehensive range of medical periodicals in its files.

Provincial medical libraries are necessarily more parochial in their size and scope, and there are few of any importance which now remain as active individual units, the majority of the old-established and important collections having been amalgamated with university medical libraries, as at Manchester, Leeds, Bristol, Cardiff, and Newcastle-upon-Tyne. However, the Birmingham Medical Institute, the Ulster Medical Society, Belfast, and the Liverpool Medical Institution still retain their individuality, although I understand the Birmingham Medical Institute now hands over its periodicals to the University of Birmingham Medical School Library and the Ulster Medical Society has a very close liaison with the Queen's University, members of the Society having special facilities for the use of the medical library there.

The ability of a medical society's library to continue as a separate entity depends on its financial backing in the form of investments, etc., and the number of its Members. The Liverpool Medical Institution is fortunate in having a large number of Members, and a building well designed for its purpose. The accommodation is now becoming severely strained, but there is reason to hope that extensions may prove practicable before long.

The medical society library has an important part to play in the progress of medicine. It can be of great assistance to the general practitioner, enabling him to keep up-to-date with the latest developments in treatment and diagnosis, by providing him with books and journals peculiar to his needs, while the specialist is equipped with a selection of journals on his particular subject and a representative collection of monographs.

In a university town the closest liaison between the medical society library and the university medical library is most important. It is the accepted custom in Liverpool that, apart from the obvious journals which must be available in every medical library, the Medical Institution concentrates on specialist publications while the University maintains the periodicals on basic subjects.

The medical society library can also make a valuable contribution to the advancement of knowledge by the formation of special collections. In the Liverpool Medical Institution we have founded a Library of Orthopaedic Surgery. This was established as part of the centenary celebrations in 1937,

and is intended as a kind of "spiritual home" for the members of the class reading for the Degree of Master of Orthopaedic Surgery at the University. These post-graduates are admitted as Temporary Members for the period of their studies. The Library was deliberately planned as a small, comfortable study, with a collection of books limited to the subject of orthopaedics, but by no means confined either to "ancient" or "modern" works. It was felt that the users of the Library should have ever before them the works of the pioneers of the subject, even if those ideas are out-moded or out-dated, so that a complete picture of the specialty could be obtained. The Library also contains a collection of reprints, classified according to subject, and a collection of the papers which each member of the class is required to prepare during the course of his studies. These papers will, in time, provide an invaluable guide and bibliography to the study of orthopaedics.

There are also other ways in which a medical society can, through its library, add much to medical and local history. Collections of books by local authors, reprints of their articles, local and neighboring Medical Officers' of Health and Hospital Reports, and photographs of Members can all be of immense value to the historian, and the local medical society's library is the place to which he should be encouraged to turn for information appertaining to the medical history of the district. Unfortunately, however, financial considerations in many instances prevent the development of such services, for the staff which can be employed is insufficient to permit time to be occupied on other than routine everyday duties.

In conclusion, I offer a few statistics with reference to the Liverpool Medical Institution. The Membership at the end of 1951 was 755, of which approximately 540 reside or practise within easy reach of the Institution. In addition there are about 20 Temporary Members who are in Liverpool for the purpose of post-graduate study. The income of the Institution during 1951 was just over £3,000 for all purposes, and library expenditure amounted to £736, of which £120 was spent on new books, £359 on periodicals, £149 on binding, and the balance on a circulating library subscription, postages, and miscellaneous items. The number of books and journals issued for home reading was 4,532, including 372 loans to other libraries. We borrowed from other libraries 177 books and journals for use by Members of the Institution. Approximately 160 periodical publications are received, the majority by purchase. There is a staff of three whose duties include the management of the whole of the Institution's affairs, the collection of subscriptions and book-keeping, the secretarial duties connected with the Council, Library Committee, House Committee, Programme Committee, and Trustees, and the arrangement of meetings for outside societies.

III. A Combined University—Medical and Medical Society Library

By G. Wilson

Librarian, Medical Library of the University of Manchester, Manchester, England

You have heard about a purely University Medical Library, a purely Medical Society Library. I suppose I have been asked to speak because the Manchester Medical Library combines the two. Like Mr. Lee, I am going to take the historical approach to show the development of the Library.

The Manchester Medical Library was founded in 1834, but I would like to take you a little further back. In 1781 the Manchester Literary and Philosophical Society was formed, and it is interesting to note that two of the three founders were medical men, Dr. Thomas Percival, of *Medical Ethics* fame, and Thomas Henry, Apothecary (familiarly known as "Magnesia Henry" because he invented a new way of preparing magnesia alba). Thirteen of the Society's twenty-four original members were medical men; Dr. Peter Mainwaring shared the honour of being President for the first year with Mr. James Massey, who was Treasurer of the Manchester Infirmary for many years; Dr. Percival was then joint President for five years and the sole President for twenty-five years. Among the first 216 Vice-Presidents 135 were medical men; the first three communications were given by medical men, who were responsible for thirty-two of the first fifty papers. The Literary and Philosophical Society, therefore, one may say, served the purpose of a medical society for fifty years, and this explains the comparatively late date for the founding of a medical society in a place like Manchester.

There is no doubt that the need was felt for a medical library and for the opportunity to read papers and discuss professional matters in private, but it was over fifty years before steps were taken to bring this about.

At a public meeting held at York Hotel, January 29, 1834, for the purpose of forming an association of members of the Profession residing in the North of England, Dr. Hull in the Chair, it was agreed unanimously that the formation of a medical library was an object worthy of the attention of the meeting. A committee was appointed to make arrangements for the formation of the Library and Reading Room. It was recommended that a canvass be undertaken of the whole profession resident in Manchester and its vicinity. Accordingly the following document was drawn up for signature:

> The necessity of a Medical Library, Reading Room and Society having been acknowledged at a Public Meeting of the Medical Profession lately held at the York Hotel, Dr. Hull in the Chair, we, the undersigned, agree to support such Medical Library, Reading Room and Society for the use of the Members of the Medical Profession resident in Manchester and its vicinity.

Mr. J. P. Catlow and Mr. J. Walker, Surgeons, paid 230 calls within a fortnight to over 150 doctors and the answers of some are worth recalling:—

"Dr. Alexander will join if Dr. Holme does."
"Dr. Holme will have nothing to do with it."
"Dr. MacGregor declines, as he is not in the habit of reading except newspapers."
"Dr. White has gone to bed."
"Mr. Fawdington will see how the thing goes on."
"Mr. Horder is too busy to attend to any reading."
"Mr. Greswell wants foreign periodicals, especially German ones."

When sufficient promises of support were received a meeting was held on September 4th, 1834, in the billiard room of the York Hotel. Some seventy doctors attended and it was unanimously resolved to form a Society, with the immediate object of establishing a medical library and reading room and with the further object of holding occasional meetings for mutual improvement and the advancement of medical science. It is interesting to note that the formation of a medical library figured so prominently.

When the Society was founded, Dr. John Hull presented a number of books. Gifts came from Dr. S. A. Bardsley, Sir James J. Bardsley, Dr. J. Ashton, Dr. T. Radford, Dr. Banks, Dr. R. T. Hunt, and Mr. John Windsor. So began the Manchester Medical Library and the first book to be placed in the Library was Cowper's *Plagiarism of Bidloo.*

A room was rented from a Mr. Boond, at 40 Faulkner Street, for £30 a year and Mrs. Boond acted as Librarian for some years at a salary of £5 a year. She was kept up to the mark, however, for she had to replace the *Report of the Sanitary Conditions of the Labouring Classes* which was lost before it was put into circulation. And her salary for a quarter was docked to the extent of the cost of a copy of the *British and Foreign Medical Review* which was lost by her. The first catalogue of 1,075 volumes and pamphlets was issued in 1835, and in 1836 fifteen periodicals were being received. Catalogues were also published in 1866, 1873, and 1890.

In 1845 the Society secured the use of two rooms for the Library and a larger one for meetings in the Royal Institution, Mosley Street, for an annual rent of £35, but in 1854 the Committee was disturbed by a communication from the Council of the Royal Institution to the effect that the Society could no longer be permitted to occupy rooms on the original terms at the Institution. After careful consideration of the financial position, it was decided that to leave the quarters in the Institution would inevitably mean dissolution. Eventually it was arranged that the Society should become the Medical Section of the Institution, and the Library was handed over in Trust for the Society, which thereby gave up its rights to sole ownership. With a care for the maintenance of the library a further provision was that, if the Royal Institution

ever dissolved, the books were to be placed at the disposal of the Chetham Library authorities.

In 1859 an appeal for help for the library was addressed to the general public, but as Dr. Cullingworth said in an account of the library's vicissitudes in 1876, "not one obolus, not one little duodecimo, was received in response."

The first large donation to the Library was a handsome gift of 1,000 volumes from Dr. Charles Clay in 1860. With improved fortunes, the Library grew rapidly in size, the number of volumes in 1866 being 7,890 and double that number in 1875.

A landmark in the history of the Library was when Dr. Thomas Windsor became Honorary Librarian from 1853 until 1863. During this period, the number of volumes and pamphlets increased from 2,558 in 1858 to 12,594 in 1863. He prepared a catalogue which was published in 1858 and compiled a MS. catalogue of 6000 pamphlets. Although he ceased to be Honorary Librarian in 1863, he continued to buy books until 1874, when for health reasons he had to retire. In 1878 he presented 700 volumes, another evidence of the interest which he had taken in the Library. He was Honorary Librarian again from 1879–1883. It was Windsor who conceived the idea of having headquarters at the new Medical School, and he supervised the removal of the Library, which was completed in 1875.

Thomas Windsor apparently had a free hand in his purchases but some criticism arose, and opinions were freely expressed that the money spent on old books could be more profitably used in the purchases of more useful books for the ordinary reader. Such criticism probably irritated him, for he expressed the wish to resign. Finally trouble arose over the proposed additions to the rooms of the Society in the new buildings of the Medical School. He expressed strong objections to having three open archways between the library proper and the new students' reading room, and asked that steps be taken to prevent the two rooms being in direct communication. The General Committee did not consider this necessary and Dr. Windsor, therefore, felt compelled in 1883 to retire from the Library Committee in protest. It is interesting to note that Dr. Windsor's suggestion has just been accomplished, sixty-nine years later, and after several attempts. He transferred his services to the Surgeon-General's Library which welcomed with open arms everything he could send.[1]

An attempt was made to renew old relations by passing a resolution congratulating him on being a member for fifty years, and recognising that he was virtually the founder of the Library. He was really pleased with the resolution and with what he saw of the Library when he re-visited it, but he could never forget past years and did not renew his intended benefactions to the Society stated in his will in days of happier associations. It was a great tragedy that Thomas Windsor and the Library Committee disagreed because Windsor

[1] See the article on this by D. M. Schullian, Thomas Windsor, Benefactor of the Army Medical Library. BULLETIN, 38: 135–144, Apr. 1950. [Ed.]

was a born book-collector, and second-hand books sales lists fascinated him. He had a good knowledge of Latin and Greek, and spoke fluently in seven or eight languages. He retired from practice before he was 50, being of independent means, and devoted his life to book collecting. He had a wonderful knowledge of old books and their values. He bought freely especially from the Continent, and his house was full of his own collection, on shelves, and piled up in stacks on the floor. My late Chairman once told me that you had great difficulty in moving about the house for his interests were not confined to medicine.

He was responsible for the Library's magnificent historical collection which includes many rarities: twelve incunabula, over 200 books printed before 1550, and 300 copies of English works printed before 1750. It is recorded that he added 10,338 volumes to the Library at an average cost of 2/2½d per volume. Windsor was a tall sparely-built man, with a determined mien, and abrupt manner which suggested that he liked his own way and was not tolerant of opposition. Those who knew him well said that he was exceedingly able, but very difficult to work with. The following anecdote from the Manchester Collection may help to illustrate his character.

A story is told that when Windsor was ill at Great Budworth, he absolutely refused to have any doctor called. Dr. Love, the local doctor, wanted to help and called several times, but was refused admission. At last, when Windsor became very ill, and still refused Love admission, Love stood at the bottom of the stairs and shouted up, "Dr. Windsor—if you don't let me come up I shall go straight to the coroner and make arrangements for an inquest and post-mortem on you when you are dead." Windsor then allowed Love to come and attend him.

He died, a bachelor, in 1910, and by his will he bequeathed part of his medical books and manuscripts to the Surgeon-General's Library and the rest to the library of the Manchester Medical Society. His scientific books he directed should be given to the Manchester University Library and his miscellaneous books to the John Rylands Library.

In 1872 the Manchester Royal School of Medicine, Pine Street, amalgamated with the Owens College about the time of the College's removal from Quay Street to Oxford Road, and it was seen that it would be a great advantage to the Society if it could find suitable accommodation in the new medical school. Negotiations were entered into between the Society, the Royal Institution, the Chethams Library, and the College, chiefly through the initiative of Thomas Windsor, who saw the great advantage which a close association with a school of medicine would be both to the Society and to its members. The Royal Institution and the Chethams Library willingly withdrew any claim that they had to a reversionary interest in the books, and when the College offered suitable terms and accommodation, an amalgamation of interests between it and the Society was satisfactorily arranged.

In the Deed of Agreement, the Council of the Owens College undertook to

provide accommodation for the Library, a reading room, and a lecture theatre for the Society. It also agreed to contribute an annual sum of £100 to the funds of the Society, which was to manage the Library and to pay all other expenses of maintenance; on the other hand the members of the Council, professors, lecturers, and medical students were to have the right of access to, and use of, the Library.

The first whole-time salaried Librarian was appointed in 1878, and twenty years later, an assistant. By 1890 the Library stock had increased to 27,000 volumes, and a catalogue of 1300 pages was published that year. The work for this was done by a Dr. Lindemann who was a very interesting character, and I should like to say a little about him taken from the notes of Dr. S. Moritz, and Dr. E. Bosdin Leech.

In the history of all Medical Schools there must be men of striking personality and characteristics who, though not great enough to be handed down as founders or pioneers, nevertheless do help to build up the complex edifice of a medical teaching centre; their hobbies, their work in some side-line, or even their eccentricities may react on their surroundings and their lives are worth recording. Of such a class was Dr. Lindemann. He has always appealed to me, partly because of his gigantic slip catalogue of the books of the Manchester Medical Society. Dr. Lindemann was sub-librarian to the Manchester Medical Society from 1879–1888. The usefulness of the Library was considerably impeded by the incompleteness and inaccuracy of the then existing catalogue of the library. It was therefore decided to make a new card or slip catalogue. Pre-eminently suitable to undertake the work seemed to be Dr. Lindemann, who had appeared in Manchester some time before 1879. He had all the necessary qualifications, being a medical man, a good linguist, a man of leisure, and willing to work for a nominal salary. The funds of the Medical Society then, as now, did not provide a large outlay. By his work in the Library Lindemann showed himself a man of patience. With his great literary knowledge and wide experience of men, conversation with him was always most interesting and entertaining. I remember, in particular, a dinner party given to celebrate, I forget which, either Lindemann's or his friend's birthday; Dreschfeld, Cullingworth, Windsor, Whitehead, and I were the guests. The dinner had been cooked by the hosts with the assistance of Walter Whitehead, of tongue and pile fame, who emulated Sir Henry Thompson in his culinary accomplishments and whose bachelor entertainments at the "Flagstaff" on the top of the hill behind Colwyn Bay were ever memorable. I forget the menu, but the *pièce de resistance* was a *rôti* which some of us took to be venison and others to be wild boar. In fact it was a leg of mutton which Lindemann had preserved by a method patented by himself many years before, the fellow leg having been awarded a gold medal at the Paris Exhibition of 1869 for its good state after ten years preservation. The idea of having eaten a leg of mutton some twenty to thirty years old demoralised Dreschfeld and upset his stomach so much that he could eat no more food that night, or for several days after.

This dinner took place in Lindemann's later days. Little did we think that night that our host, who then seemed in the best of health and spirits, and with whom affairs seemed to have picked up somewhat, was near an undeserved end. It was early in 1888 that he went for a holiday to the Riviera. He used to say that he devised a system for gambling at roulette. Luckily, or rather unluckily, he won a large sum of money in play one night at Monte Carlo and was found next morning on the Corniche Road stabbed through the back. The murderer was never discovered, and a considerable time elapsed before we, in Manchester, heard of his death. It was a coincidence that, at the time he was away on his last fatal holiday, it was decided to offer him regular employment as Librarian to the Society and to appoint an Assistant Librarian to help him with his work. He never came home to take on the duties.

Mrs. Rylands of the John Rylands Library presented 196 volumes from the Althorpe Collection in 1894, and many were in handsome leather bindings. A special vote of thanks engrossed on vellum was accorded to her by the Society for her handsome gift.

During the earlier years of this century the Library received many periodicals in exchange for the *Medical Chronicle*, a Manchester publication which ceased during the first World War in 1917, and has not been revived.

The difficulty of taking proper care of hospital libraries without a full time librarian led to the gift to the Society of books belonging to the Macclesfield and Bolton Infirmaries, and also to the presentation to the Manchester University of the large libraries from the Manchester Royal Infirmary in 1917, and from St. Mary's Hospitals in 1927, each of which contained about 7,000 volumes. Much valuable material, both historical and current, was added to our Library and the duplicates were sold and the money received used to fill in gaps, particularly periodical sets.

As you see, in Manchester we have done our best to have one large Central Medical Library. The University always realised the value of an efficient library to the Medical School and to research workers, and increased its annual grant to £200 in 1905, and to £500 in 1920.

In 1927 the Library Committee asked the University for increased accommodation for the books. The Council of the University replied by a request for definite information about the prospect of the books belonging to the Society being at some future time removed to a Medical Institute in the town, the possibility of which had so often been discussed. The matter was carefully considered, and the result of two years' deliberation was that the housing and administration of such a large library in a separate building at the expense of the Society was quite impossible. It was also felt that the best place for such a valuable collection of medical literature, the most valuable in England outside London, was at the University, where it was in everyday use by research workers. Such being the case, and because of the financial circumstances, it was finally decided in 1929 to offer to present the Library to the University. The conditions of the offer were that members of the Society should continue to have right of access to, and use of, the Library as they had always had; that it should pay 70 per cent of its income from subscriptions towards the cost of maintenance of the Library, so long as the Society had its headquarters in the Medical School; and that the University should be responsible for the remaining cost of the Library. If the Society ever moved its headquarters, it was to pay 10 per cent of its subscription income for similar privileges. The University expressed its willingness to accept the offer, and terms very favourable to the members of the Medical Society, including the right of access to the Arts and Science Libraries of the University, were mutually agreed upon.

Legal opinion was taken on the right of the Medical Society to dispose of its property in such a manner, but this was to the effect that it was quite within its power to do so.

The formal transfer of the Library took place on October 24th, 1930, at a meeting of the Society when Mr. Howson Ray, the President of the Medical Society, formally offered the Library to the University. The Chancellor of the University, the Earl of Crawford and Balcarres, in accepting the offer, thanked the Society for the handsome gift, the value of which the University fully appreciated, and he expressed the determination of the Council to maintain the Library in its very worthy condition. The Library is now governed by a library committee consisting of five University and three Medical Society representatives, and is a sub-committee of the Council of the University.

Another landmark in the history of the Library was in 1934, the centenary year of the Manchester Medical Society, when Dr. E. Bosdin Leech, the President, presented to the Library his Manchester Medical Collection which comprised 775 books, and 110 quarto steel boxes containing biographical notes and pamphlets by and about Manchester medical men; this collection he kept up-to-date until his death in 1950. We are doing our best to continue this good work, and the section now contains some 380 boxes and 1300 books. Dr. Leech also presented a large number of books from the library of Dr. John Hull, the first President of the Manchester Medical Society. In addition, he classified the library's pamphlet and reprint collection; his great work for the Library entitles him to be placed among those who have done most to make the Library what it is to-day.

Mr. Percy W. Hull, grandson of Dr. John Hull, enriched the Manchester Collection in 1934 by presenting a large number of interesting volumes of Dr. John Hull's note-books, in shorthand.

To-day the Library possesses about 100,000 volumes, receives 600 periodical publications and over 1,500 textbooks and monographs annually. It contains a very fine Historical Collection (one of our members, who has made great use of this section, said that if you want an old medical book, it is a fifty-fifty chance that we have it), a Pamphlet and Reprint Collection, and a very good Local Collection. It is used by the Staff of the University, students of the Faculty of Medicine, other students on recommendation from the head of their department, and by Fellows of the Manchester Medical Society (who number nearly 1,500), by various hospital staffs, and a number of manufacturing firms in the district. There is a staff of nine. Books are classified according to a private classification scheme, and periodicals are grouped according to broad subject headings. There is a card catalogue of all books added since 1890 and those in the Library before that date are gradually being transferred.

There are departmental libraries in Anatomy, Physiology, Pharmacology, Obstetrics and Gynecology, and Dentistry.

The Manchester Medical Library has been very fortunate in having a number of men who have dedicated much of their time and energy to the welfare of the Library, but the three outstanding ones are Dr. Thomas Windsor, Dr. E. Bosdin Leech, and Dr. E. M. Brockbank who recently retired after 45 years as Chairman after seeing the Library grow from 30,000 to 95,000 volumes. Indeed, my task in preparing this address has been greatly facilitated by the privilege of having access to the works of Dr. E. M. Brockbank and Dr. Bosdin Leech.

New Library at the University of Oklahoma School of Medicine

By Lilah B. Heck

Librarian, University of Oklahoma School of Medicine
Oklahoma City, Oklahoma

As is the case with most medical libraries, ours had been overcrowded for years. Periodically we had hoped for an addition at one end of the library or to expand into space occupied by administrative offices. We had watched for ideas and had sketched floor plans for both possibilities. However, when funds were finally allocated for the addition, entirely different building plans were drawn by the architect, space for the library was provided in the new wing, and we had to begin anew with our planning.

Since we were to occupy two floors of a wing which had to conform to the rest of the building in window placement, etc., and had to fit teaching department needs on other floors, we really had little choice about shape or size of our new library. We did, however, succeed in getting additional floor space in the basement. Our problem, to plan a convenient arrangement for offices, circulation desk area, reference center, reading room, and book stacks in space approximately 46 x 104 feet, was complicated by the fact that the entrance was near one end. It was also necessary that it be so arranged that one person at the circulation desk could supervise the entire library. We've now been moved for a year and feel that while not perfect, it is quite satisfactory. I believe there are few changes we would make if we were planning again for the same space.

Since the circulation desk necessarily had to be near the entrance, it was decided to use a plate glass partition to separate the reading-periodical room at the east end from the central area. This arrangement, besides allowing the entire room to be visible from the circulation desk, gives us a beautifully light and airy room with large window spaces on three sides, the glass partition forming the fourth wall. This partition also aids in eliminating noise from the reading room. The west end of the building is occupied by the service area behind the circulation desk and the three connecting offices, two of which open into the stack area. All areas except the reserve stacks behind the circulation desk are open to students and faculty alike.

The central portion has only counter-height shelving and the catalog cabinets to separate the stacks from the reference area. The small browsing room is separated from the reference center by high double-faced shelving, leaving only a doorway. This arrangement permits much better lighting and ventila-

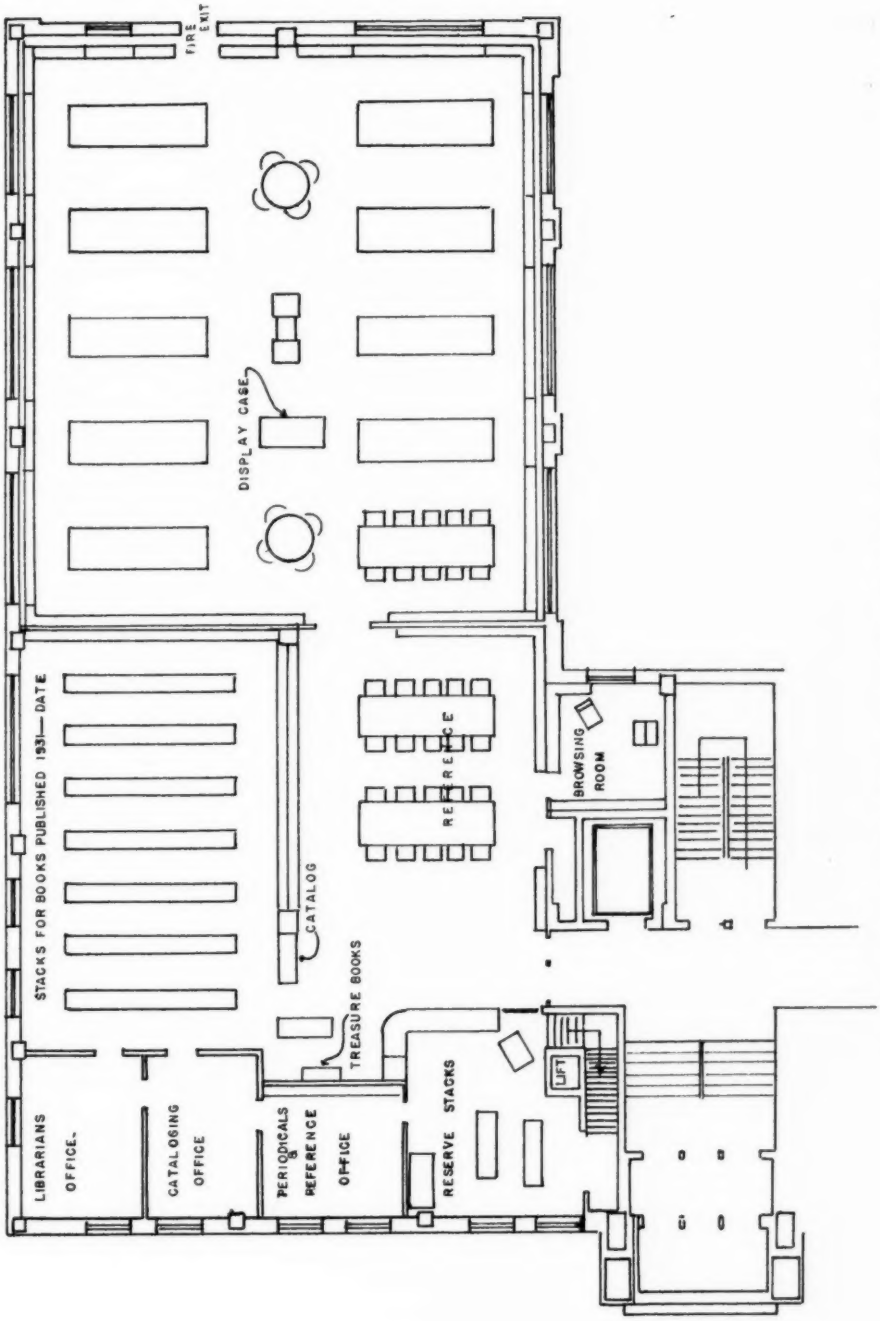

Figure 1. Main floor of Library of University of Oklahoma School of Medicine

tion than solid walls and a little more supervision of all areas. It also gives a more spacious appearance than if the space were divided into small rooms.

All lighting is fluorescent, that in the reference center and reading room being the slim line continuous tube, semi-indirect type. Stack areas both up and downstairs have slim line continuous tube direct lights through each stack aisle. Office lights have the egg crate type diffusers.

Asphalt tile flooring in all public areas on the main floor is light tan with touches of cream and maroon and with a maroon border. The walls are light green. All new furniture and shelving except the stacks, is birch (Library Bureau's Trend design), finished to match the light oak which we already had. The chairs in the reference center have persimmon colored leather backs and

Figure 2. Circulation desk from far side of reading room

those at two small round tables in the reading room have sea-green leather backs. This adds a touch of color. All other chairs are plain. Ceilings are acoustic tile. The windows in the offices, the browsing room, the reading room, and the service area have venetian shades. The Library Bureau furnished and installed all new furniture and equipment including a new circulation desk. The stacks are their free-standing "grayrite" steel. The steel carrels also are gray.

Heating is steam convection heat with the convectors concealed behind the wall shelving in the reading room but exposed in other areas. Air-conditioning is badly needed but the appropriation for the building would not permit it. We have two large pedestal fans in the reading room, two in the stacks and

reference area, and table model fans in the offices and circulation area. The electric book-lift is to the right of the circulation desk and the public elevator from the hall just outside our entrance opens into our basement stacks. Of course, it can be used between the basement and the first floor only with a key. Our intercom system has three outlets on the first floor (circulation desk, librarian's office, and assistant librarian's office) and four on the lower floor. We have telephone extensions in the offices and in the downstairs workroom.

SERVICE AREA: To the left of the entrance is the circulation desk and service area. Shelving for reserve material and oversize books, the shelf list, the book lift, the Kardex, and two desks still leave plenty of room behind the

Figure 3. The reference center showing section of stacks and reading room beyond

circulation desk. The stairs to the basement stacks are next to the entrance so that anyone using them passes the end of the circulation desk. Later we plan to install a gate here for better supervision. A small washroom opens off this area on one side, the office of the assistant librarian off the other.

REFERENCE AREA: To the right of the entrance there is wall shelving and in the open space, two long tables with reader's guide racks on them. On one of these tables are shelved the *Index Medicus*, *Quarterly Cumulative Index Medicus*, and the *Current List of Medical Literature*; on the other, the unbound volumes of *Excerpta Medica*. Shelved nearby are the bound volumes of *Excerpta Medica* and all volumes of *Biological Abstracts*, *Chemical Abstracts*, and other indexing and abstracting periodicals. On the low double-faced shelving through

the middle of the room are shelved the *Index-Catalogue*, the Specialist Directories, and *American Men of Science*. There are chairs in this area for sixteen.

STACKS: Books published since 1930 and a few handbook sets published earlier or part of which were published earlier (Beilstein, Henke-Lubarsch, etc.) are shelved in this area. The counter-height shelving along the glass partition, and on this side of the shelving between the stack area and reference center is reserved for future expansion. Locked book cases along the wall near the gate to the circulation desk hold our "treasure" books—books published before 1850. In each stack aisle both up and downstairs we have low stools which may be used for reaching top shelves or for seats for those who wish to consult books briefly without removing them from the stacks.

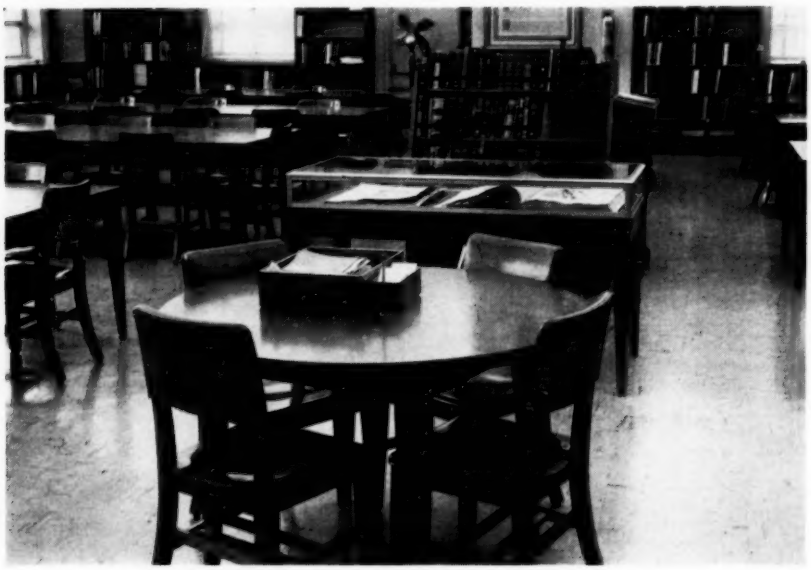

Figure 4. Reading room from doorway

READING-PERIODICAL ROOM: This room (approximately 46 x 53 feet) has counter-height shelving under the windows and along the partition, and high shelving between the windows, filling all wall spaces. Both bound and unbound periodicals published since 1948 are shelved alphabetically around the room. We plan to shelve five years of each title here. There are ten long tables and two small round ones making seating space for one hundred four in this room. We also have a museum case, a display rack for new books, and shelving around a central column for encyclopedias and dictionaries. A revolving dictionary stand with Webster's *Dictionary* on it is located on one of the small tables. Current periodicals for each day are placed on the other small table near the entrance to the reading room.

BROWSING ROOM: The small browsing room has high shelving on two sides and part of a third side, but already it has become so crowded that we have added a temporary section of shelving on the fourth wall. We shelve all history of medicine, all biography, and many books for general reading in this room. So far, the only furniture other than shelving consists of two comfortable chairs (upholstered in plastic as near the color of the chair backs in the reference center as possible) and a low table model electric fan which also serves as a magazine table.

OFFICES: Each of the three offices has wall shelving on one wall. The walls are rose tan and floors are asphalt tile in maroon with touches of tan. Ceilings here also are acoustic tile.

PERIODICAL STACKS: The periodical stacks occupy almost the entire space under the main floor. We feel that there will be space here for at least ten years' growth without crowding. Also, since our stacks are free-standing and we have fairly wide aisles, they could be moved closer together if necessary. There are tables and chairs at intervals down the wide center aisle.

BASEMENT BOOK STACKS: Books published before 1931 are shelved in the south wing. There is space here for many years' expansion and part of the shelving could be utilized for periodical stacks if necessary. Along the west and south walls are fourteen carrels for use of students and faculty. A duplicate room enclosed with metal grill-work is also located in this section.

The workroom, also enclosed with metal grill-work, has built-in shelves and work space on two sides with wall cabinets above on one side. It also has a sink. A staff room and a small conference room occupy the rest of the space under the offices. Walls and ceilings are finished in these rooms but stackroom walls and ceilings are unfinished; we had the choice of less space and it finished or more space and it left unfinished. Floors are concrete in all areas except the conference and staff rooms.

The stairway is steel with a landing about one third of the way down.

The chief change that we would make is in the location of the carrels. Originally, we had planned them for the east end of the periodical stacks. Because space had to be left for a fire escape door and also because we wanted all the shelving possible for periodicals, we decided on another location, but the carrels would be more convenient if they were close to the periodicals.

We have noticed during the past year that the Library staff was not alone in being proud of the new Library. As faculty members and the Dean have had out-of-town visitors, they have always brought them to see the Library.

Subject Headings

I. Examples from a Personal File in Cancer Research*

By A. R. T. Denues†

The Sloan-Kettering Institute for Cancer Research, New York

As the first part of this presentation with Kenneth T. Morse,[1] the organization of a small personal file will be discussed as a simple example of subject headings arranged by one worker in cancer research.

The detailed content and the organization of such a file are largely individual matters, reflecting the interests of the worker and his general habits of mind. The need in the case under discussion was for time-saving coverage of four lines of investigative interest, to provide access to material on techniques and an index to relevant researches.

For simplicity, the four lines of research interest were themselves used as the first four main headings of the file, viz.,

I. Electronic Theory of Carcinogenesis
II. Mucolytic Enzymes and Invasion
III. The Nucleus and Cell Division
IV. Long Range Forces

The first heading deals with a unique, unifying hypothesis from theoretical chemistry to explain the action of cancer-producing chemicals. The second interest involves mucolytic enzymes, biological catalysts thought for a time to affect the invasion of some cancers. Heading III embraces structural and functional interests in normal and neoplastic cells. The topic of long range forces bears upon mechanisms in cell division and in general cell physiology. These four headings thus include, for this worker, two experimental interests (II and III) and two of a theoretical sort (I and IV).

In addition to these four topics, an equal number of main headings was found necessary for collateral coverage, viz.,

V. Techniques
VI. Cancer, General
VII. Applied Electron Microscopy
VIII. Reviews

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* Extracted from a presentation before the Division of Cataloging and Classification, American Library Association, New York, N. Y., July 2, 1952.

† This communication was written under a grant from the Alfred P. Sloan Foundation.

[1] Morse, K. T. Subject Headings. II. The Organization of a Bibliography in Electron Microscopy: Bulletin, 41: 246–51, July 1953.

These were adopted to provide technical access (headings V and VII) and to maintain some broad contact with cancer research and with allied science (VI and VIII).

From contacts with the literature there have accumulated in four years about 3700 cards, bearing full bibliographic citations and epitomic notes. These are distributed among the main headings as follows:

I.	Electronic Theory of Carcinogenesis	250 cards
II.	Mucolytic Enzymes and Invasion	250 "
III.	Nucleus and Cell Division	1000 "
IV.	Long Range Forces	50 "
V.	Techniques	500 "
VI.	Cancer, General	250 "
VII.	Applied Electron Microscopy	250 "
VIII.	Reviews	1100 "
	Miscellanea	50 "
	Total	3700 cards

This distribution emphasizes both our concentration on Topic III and the utility of technical literature (V and VII) and especially of reviews (VIII). This file is kept in a portable box, useful away from the laboratory and even during commuting by train!

To avoid complexity and excessive burdens of filing, subheadings have been used sparingly and under only half of these main headings. Alphabetical filing by author has been used in all sections, and cross references have been kept to a minimum. The limited breakdowns employed again follow the research interests of the worker. For the rapidly expanding field of applied electron microscopy, for example, *cells*, *tissues*, and *viruses* have served as prime topical classes, with added subheadings for ***bibliographies*** and ***scientific meetings*** that have proved especially useful for reference. For the central interest in the nucleus and in cell division, the greatest number of subheadings was employed:

III. NUCLEUS AND CELL DIVISION

1. Mitosis
2. Spindle
3. Nucleus, General
4. Nuclear Membrane
5. Nuclear Sap
6. Nucleolus
7. Chromosomes
8. Genes
9. Nucleic Acids
10. Nucleases
11. Fiber and Protein Structure
12. Nucleoproteins
13. Erythrocytes
14. Leukocytes

These, starting with a broad topic, follow a structural development and then include topics related to the research interest and even to particular cells useful in developing this interest. Such seemingly heterogeneous logic may distress librarians, but the file has proved useful in this simple, topical form. Analysis of the cards indicates that further breakdown would so complicate the system that it could hardly remain a real part of this worker. Extensive subdivision would, in such practice, decrease the availability of material and increase the burdens of filing. The balance to be struck between system and simplicity is patently another individual matter.

The file is thus arranged with 8 main headings (4 investigative topics, 4 for collateral technical coverage), 32 primary subheadings, and 9 secondary subheadings, all of which have proved useful. Primary problems in the use of this file lie chiefly in keeping up with the filing and keeping its fluid organization abreast of current research interests.

The general principles here include a marked simplicity in functional organization, individuality in the coverage and treatment of the material, and the use of specific research-type topical main headings with technical thought persisting through limited subheadings.

II. The Organization of a Bibliography in Electron Microscopy*

By Kenneth T. Morse

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The companion to this paper (1) has described an individual scientist's approach to the subject organization of the literature in his specific fields of investigation.

Let us now consider a subject approach that will serve the needs of a group of investigators working separately on a variety of distantly related problems but with a common interest in a research technique, electron microscopy. With the electron microscope in use in many areas of research in nearly every major country of the world, and with research involving its use reflecting the general intensification of scientific activity, the volume of publication has made an effective approach to the literature imperative.

The last ten years have seen several attempts to organize this swelling literature, which is composed chiefly of papers in scientific journals. The bibliography of Marton and others, first published in parts in the *Journal of Applied Physics*, later supplemented by other authors, and issued most recently as a circular of the National Bureau of Standards, (2) covers the literature through 1949.

* Extracted from a presentation before the Division of Cataloging and Classification, American Library Association, New York, N. Y., July 2, 1952.

It is subdivided into six sections on the basis of form and broad subject categories as follows:

	No. of References
1. Books	30
2. Survey articles	246
3. Instrumentation	114
4. Electron optics	239
5. Related instruments	154
6. Applications	1140

Within each section, the arrangement is by year of publication and then alphabetically by author. Each reference is numbered for convenient identification from a separate alphabetical author index. With more than 1100 references in the important area of "Applications" differentiated only by year of publication, this organization provides little help in an approach by subject. It is most valuable where one's interest is either historical or in the researches of specific investigators. As with a personal file, this bibliography is most effective in the hands of someone well acquainted with the literature.

Beginning in 1951, von Borries and Ruska (3) have published annual bibliographies covering the literature from 1950, in which the only approach is by classed subjects. The literature is organized into eleven classes, as follows:

	No. of Subclasses
1. Theory of electron images	3
2. Electron microscope optics	10
3. Electron diffraction	0
4. Electron spectrography	0
5. Other microscopes	3
6. Components of the electron microscope	6
7. Preparation procedures	6
8. Technological fields	9
9. Fibers and synthetics	5
10. Biology and medicine	14
11. Reviews	0

A typical class breakdown is shown for category 7.

7. Preparation procedures
   - a. General, Calibration of the instrument
   - b. Transparent preparations
     - 1.) Microtomy
   - c. Replica processes
   - d. Shadowing
   - e. Other techniques
   - f. Special apparatus

Within each class or subclass, the references are arranged chronologically, then alphabetically by author. They are numbered consecutively throughout.

Since there is no author index, this bibliography must be used with such author bibliographies as that of Marton and others. The most serious limitation of this work is its failure to bring out more than one subject for each reference. Very few cross references have been introduced. This practice has the desirable effect of limiting the physical dimensions of the bibliography, but it does so at the expense of its chief purpose, the exposition of the subject content of the literature.

The bibliographies discussed thus far have appeared on the printed page. The bibliography of the Electron Microscope Society of America, which covers the literature through 1949, was issued in about 200 sets on 5″ x 8″ marginal punched cards, numbering approximately 2000 cards per set. The cards were Multigraphed, but no organization by subject using marginal punchings was attempted. However, a scheme of twenty categories was suggested:

1. General or survey papers
2. Theoretical electron optics
3. Electron microscope construction
4. Electron microscope optics
5. Accessory equipment
6. Emission microscopy
7. Specimen techniques
8. Instrumental techniques
9. Electron diffraction
10. Bacteriology
11. Medicine
12. Histology
13. Cytology
14. Colloid chemistry
15. Organic chemistry
16. Inorganic chemistry
17. Clays, cements, abrasives
18. High polymers
19. Metallography
20. Crystallography

This list is heterogeneous; the first nine categories are loosely related, while the remaining eleven are concerned with specific applications. No actual subject organization of this bibliography was attempted. The practical utility of this bibliography will be investigated and reported subsequently. (4)

Each of the bibliographies discussed has served usefully but has had serious limitations. As most of these bibliographies have lapsed, the time appeared ripe for a new venture that would profit by their example. The Lillia Babbitt Hyde Foundation made such a venture possible through a grant to the New York Society of Electron Microscopists in the Fall of 1951. A subject bibliography of the world literature on electron microscopy from January 1, 1950,

has been undertaken. The primary feature of this bibliography is the relative thoroughness of its subject analysis. The present proliferation of the literature brings an acute need for knowledge of the contents of the literature without firsthand contact. The purpose of this "NYSEM" bibliography is to supply such a knowledge.

Following the precedent of the national Society, the 5″ x 8″ marginal punched card was selected as the working unit. The attractive feature of this card is its economy and versatility: it is at once an author card and many subject cards. The card selected is a standard, single row, Keysort card widely used for bib-

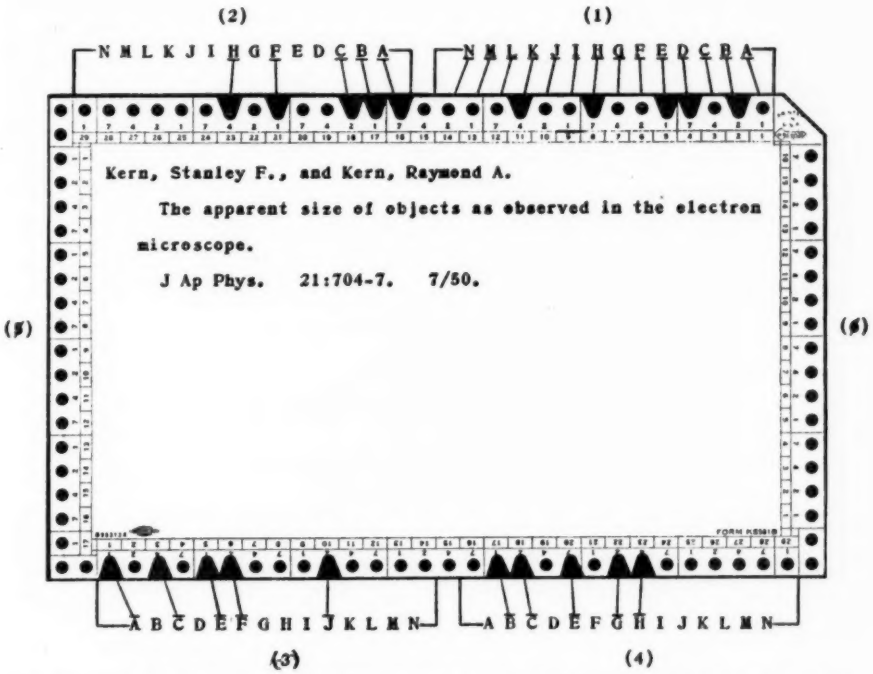
(2)
(1)
N M L K J I H G F E D C B A
Kern, Stanley F., and Kern, Raymond A.
The apparent size of objects as observed in the electron microscope.
J Ap Phys. 21:704-7. 7/50.
(5)
(5)
A B C D E F G H I J K L M N
A B C D E F G H I J K L M N
(3)
(4)

Figure 1. Punched card used in Bibliography of Electron Microscope Society of America

liographic purposes (Figure 1). The edges of the cards are pierced by a continuous row of holes, and each position around the card may either be closed, or open by punching. Sorting is then possible by passing a needle through a pile of cards and raising it to support those not punched in the given position. With 91 positions, 91 subjects could be directly sorted. Many more subjects may be entered on one card by coding, using combinations of holes for each entry. (5) For the NYSEM bibliography, six fields of 14 holes each are used. A distinctive code pattern of five punchings is used in each field to designate one subject. The use of five punchings allows good mechanical control of the cards

during simultaneous sorting with five needles, and does not restrict seriously the available number of headings. The number of combinations of five positions in a field of 14 positions is 2002. We hope to restrict the list of subject headings to approximately $\frac{1}{10}$ of this number. The number of headings that may be assigned to a given reference is, of course, limited by the number of fields on a card (six).

The subject headings of this bibliography grew out of a meeting of six members of the New York Society of Electron Microscopists. Widely varied interests were represented in this group. It developed that each of these scientists kept a simple subject file of the literature pertinent to his interests, and the organization of these files colored the product of this meeting. The resulting scheme of subject headings took the form of a classed list, with each heading related logically to its predecessor. The major divisions were three:

Instrumentation
Techniques
Applications

Each was further subdivided:

Instrumentation
I. Electron microscopes
II. Auxiliary preparative equipment
III. Theory

Techniques
I. Specimen preparations
II. Microscopy
III. Image observation and recording

Applications
I. Biological applications
II. Non-biological applications

A typical final breakdown is the following from the beginning of the first section:

Instrumentation
I. Electron microscopes
  A. Physical features
    1. Electron gun
    2. Lenses
    3. Object mounting
    4. Power supplies and components
    5. Vacuum systems and components
  B. Descriptions of instruments
  C. Electron diffraction
  D. Special types
  E. Reviews

This list is being tested for its ability to accommodate and differentiate subjects adequately. We are anxious to test the practical retrieval of material so classed. If necessary, new coded subjects can be simply added to the list.

Technical terminology has been used in these headings because this is the language of the chief users. Headings are assigned only after examination of the paper. Special problems arise as with biological material: organization is often simplified by employing the larger units of systematic nomenclature, but for organisms of uncertain nature, such as the viruses, we have resorted to alphabetical arrangement of common names.

III. Conclusion

These two papers suggest that the approach of scientific workers to bibliographic organization may be characterized rather more by vigor than by refinement. This approach is generally through subjects, especially in contacts with the growing periodical literature. The problems of organization are particularly challenging in their great scope. The vigor of the attacks by scientific workers might be something of a challenge to librarians, or at least an indication of the need for their participation in scientific bibliographic organization.

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5. The coding system used in this bibliography was kindly suggested by Mr. Calvin N. Mooers of the Zator Company of Boston, an authority on punched card coding.

The Budget in the Medical School Library

By Marcella Glasgow

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To the new medical school librarian one of the most difficult problems to be faced is that of the budget. When that individual is one to whom the balancing of his personal bank account is a chore, working with large sums of money which must be carefully recorded in every detail, accounted for to the proper authorities, and spent as wisely as possible, must seem very dismal in prospect.

In the literature from 1940 to the present, there is surprisingly little to aid this novice in understanding the principles and practices of budgeting, especially with strict regard to medical libraries, although the few articles found are most helpful.

"A budget is a financial statement of the estimated revenues and expenditures of an institution for a definite period of time." (1) Behind this definition of the budget lie its theoretical objectives and practical uses. "The final goal of the budget is a thoroughly objective financial estimate of library needs built around the services of the library to the organization." (2) It serves as one of the means to achieve the purpose for which libraries are established—service to a group or groups of people. Mrs. Judith Hunt in her chapter in the *Handbook of Medical Library Practice* lists certain usual functions of a medical library. (3) In order to carry out these functions, the library must determine the objectives of the groups and the institution it serves, and direct its activities to further these. A medical school library has the objectives of several groups to consider (research workers, clinicians, faculty, and students) and must correlate these with the larger, overall purpose of the medical school itself.

The uses of the budget extend beyond the mere determination of how much money has been spent, although that is indeed one of its major functions. It forecasts means for effecting a definite financial plan, guides current expenditures, summarizes costs of various library operations, aids in formulation of future policy by acting as an historical record and basis, and (last but not least) is an indispensable instrument in the hands of the wise administrator. It has been suggested that a librarian, faced with an overactive library committee, might use his management of the budget as a means of illustrating that he is an adult, responsible person capable of administering his rightful powers and duties. (4)

Allocation of Funds

No matter what the source of library funds may be, the major question to arise is whether to allocate the funds by departments with centralized control by the librarian, or to lump the funds to be administered by the librarian as his judgment indicates. This problem has been exhaustively discussed pro and con with both sides agreeing on one point, that the budget must be as fluid or flexible as possible. Certainly the librarian should be the person to cut and adjust the budget if the amount asked for is, for any reason, reduced. Common sense in apportioning funds seems to be more useful than the statistical formulae which have been devised from time to time, since the major factors in budgeting are so very difficult to evaluate statistically. (5) It is more important for the librarian to remember that reasonable balance must be maintained between the groups to be served, and that this must be arrived at as impartially and objectively as possible.

For ease in administration, for surety that no item is overlooked, and for purposes of clarifying and supporting budget requests, the budget may be itemized under several headings. Classifications into which budgets may be divided have been lumped by most authors into four categories: salaries, books and periodicals, supplies, and equipment. The more detailed classification which follows has been outlined by Miss Mildred Jordan, Librarian, Emory University Medical Library, and should help the new librarian visualize the many items to be included. (6) A discussion follows each item.

1. Salaries (professional, subprofessional, clerical, and student assistants).

Usually the administration in the institution determines the salary of the head librarian, if not that of the other library personnel as well. Walter Hausdorfer states that in special libraries where emphasis is on services rather than resources, staff is perhaps, and should be, allocated larger portions of the budget than acquisitions, and that the ratio of professional staff members to nonprofessional depends largely upon activities or emphasis in the library, whether custody and processing of material is stressed or creative use of resources. Figures vary from one library to another, as is indicated by the range of approximate percentages of the budget allocated to salaries in special libraries, 60–90%, with the majority of cases hovering around 70%. (7)

2. Equipment.

This division represents fixed assets, such as furniture, microfilm readers, typewriters, etc., in contrast to consumable supplies. Library maintenance may be included in this category. This is combined with supplies in estimations of allotted percentages of budget required, and these vary from 7–10%. (8)

3. Supplies.

This covers the consumable variety of supplies for office and library, such as catalog cards, stationery, ink, postage, and similar items. This is included with equipment above in percentage estimates.

4. Books (current, out-of-print, rare, loose-leaf pages, and replacements).

In the medical field periodicals are of major importance, and a smaller portion of the budget is usually reserved for buying textbooks and monographs. In the medical school library, however, provision of books must be made for the students in greater quantity and variety than in a library serving, for instance, the research worker alone. Purchase of books in special fields, such as anatomy, surgery, and radiology, should be in reasonable balance with certain factors mentioned by Donald Coney: (a) book use, which may be measured directly by loans attributable to personnel in the field or department; (b) publishing, which considers the average unit cost of books which the department must use, rate of publication, and the permanent value of the normal purchases in the field; and (c) available book resources, which considers adequacy of the present collection and previous expenditures and/or arrears. (9) Books, periodicals, and binding are usually combined to require approximately 10–30% of the budget.

5. Periodicals (current, back files, and replacements).

A large portion of the budget for the lumped group of books, periodicals, and binding must be assigned for periodicals: the larger the budget, the larger the proportion. In turn, this must be divided between current subscriptions and back sets. It has been suggested that 75–80% of the periodical fund be spent for current journals. (3)

6. Binding (current periodicals, back files, books, and rebinding).

The cost of binding the current periodicals may be determined fairly easily with an estimate of the number of the total current journals the library will wish to bind. The rest of the items (back files, books, and rebinding) must be estimated as nearly as possible, perhaps with a previous budget as a guide.

7. Photoduplication (Armed Forces Medical Library coupons, microfilms, photostats, etc.).

This section will also have to be estimated with the help of a previous budget or annual report, if possible.

8. Travel.

The librarian should attend professional meetings in order to advance his knowledge in the field through talking to other librarians and learning of new

advances, methods, and techniques. It is to the ultimate interests of the medical school or university to make this possible. Librarians should be encouraged not only to attend but to take part in the activities of their professional organization. If at all feasible, the administration might also make it possible for at least one other member of the library staff to go each year to the meeting.

9. Library membership in societies.

There are advantages to the university or medical school in the membership of the medical school library in the Medical Library Association. It gives recognition and special privileges, such as being permitted to participate in the Medical Library Association Exchange program. This has been a boon to most libraries in obtaining expensive and hard to secure material at very little cost.

10. Telephone and telegraph.

Any additional charges beyond the fixed monthly rates will have to be estimated by the librarian according to his use of these facilities.

11. Express.

12. Freight.

Allotments must be allowed for shipments to and from the library; they are sometimes handled by the business office of the university or paid for out of a liberal petty cash fund.

13. Insurance.

In 1946 in answer to demands by librarians, a manual on insurance for libraries was prepared by Dorothea Singer, in which it was stressed that the librarian is responsible for the evaluation—not, as has been commonly supposed, the insurance company. (10) Miss Jordan also emphasizes this. (6) Since the university usually takes the responsibility of insuring the buildings, the librarian's main concern is the evaluation of the collection itself. In an excellent article, Charles Mixer tells how Columbia University Library evaluated its holdings. (11) Added to this protection might be insurance that binderies may purchase for books and periodicals while they are in the process of being bound. Sometimes the university will take out the policy and arrange that the binderies (particularly if more than one are used) pay proportionate parts of the premium. In any event, the librarian would do well to consult a reputable insurance advisor.

Determining Budgets

To determine the amount of total budget to be requested is the core problem, and the new librarian will find that besides determining the total amount

as indicated by the classifications of the budget, there are other methods and other factors to consider. The two most widely advocated and discussed methods of determining a total budget amount are:

1. Ratio of library expenditure as compared to the college or university budget, and
2. Expenditures per student enrolled and per faculty for library purposes.

Randall and Goodrich state, however, that the best method is cost analysis of library operations, since the operations will vary from library to library according to the functions of the institution served. They believe that specifying certain minimum sums to be spent on the library per year leads to indifferent results, whether in terms of dollars per student enrolled or in terms of percentage of educational expenditure of the university. (8) Comparisons with other libraries must be used with caution, and minimum standards have a value, if not misused, as a basis upon which to build. Cost analyses of various services can certainly better evidence a need for larger library appropriations than a percentage or ratio value and be more easily justified.

Records

The library should keep records to insure complete control of spending, to furnish material for the annual report and future budgets, and to provide immediate information on library finances for report to various agencies (university or accrediting and library). Detailed records of the budget are often kept in the business office of the university too, and the librarian's records must at all times tally with these.

Wyatt lists the following records which should be kept:

1. Control report of monthly expenditures and balances
2. Record of outstanding book order commitments (may be in the form of a file of order cards with a record of the cost on each)
3. Schedule of approved accounts payable (invoice file may be used for this)
4. Permanent file of dealers' bills (filed alphabetically by dealer's name, then chronologically)
5. Record of petty cash. (2)

Wilson and Tauber suggest keeping also a duplicate order record. (1) The budget records and files would necessitate requisition and order forms, monthly financial report forms (these should not include salaries), subsidiary fund ledger (if budget is apportioned by departments), student pay-roll register, and records for petty cash expenditures. The bookkeeping is concerned primarily with expenditures; the library does not as a rule record receipts.

Budget Statement

The general aids to estimation of and control over the budget have been discussed preliminary to the actual problem of preparing the budget request. This is not a project to be undertaken in a few days, weeks, or months, but

should be compiled throughout the year. Statistics demonstrate needs most convincingly, and the budget should be based on yearly figures which the annual report may supply. The fiscal year in universities usually extends from July 1 to June 30; therefore, the tentative budget request for the next year should be ready in January, and the final budget approved in March or April.

The budget statement should:

1. Show total amount needed and separate amounts for each major classification with carefully detailed subdivisions. (Under salaries, a personnel record might be given with salary history and professional achievements.)
2. Have summary table showing:
   a. Total needed
   b. Comparative data on library expenditures for two years previous
   c. Comparison of proposed expenditures with those of current budget year
   d. Brief analysis of proposed expenditures and justification
3. Have tables of figures if necessary to support interpretation of budget
4. Be no longer than necessary
5. Show relationship to object of educational program. (12)

In conclusion, a word to the wise librarian: the best planned budget is definitely limited unless it has a librarian with a convincing, forceful personality to sell it successfully and a staff which has built up the right public relations in daily service. (13)

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The Literature of Radiobiology and Atomic Medicine

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RADIOBIOLOGY is a term referring to the study of the effects of different kinds of radiations upon living animals and plants. Its history spans more than half a century, from Konrad von Roentgen's discovery of X-ray radiations in 1895 to the advent of the release of atomic energy through the work of the Curies, Becquerel, Rutherford, Thompson, Bohr, and many others. Thus basic medical research has expanded from the early use of X-rays to the present use of X-rays, infra-red rays, ultraviolet rays, alpha rays, beta rays, gamma rays, radium rays, and neutron radiation in studying the effects of radiations upon living organisms, and the use of isotopes as radioactive tracers.

It might be worth while for the research worker entering this field to acquire some background knowledge of the literature of radiobiology. An attempt has been made to give such information in this paper. The library resources of the Bio-medical library of the University of Minnesota, the Medical Library of the Mayo Medical Foundation, and the Medical Library of the Ramsey County Medical Society in St. Paul, Minnesota, have been used.

Early historical information about X-rays will be found in *Medical electricity, Roentgen rays and radium.* (1) Two definitive works which have been published during recent decades are *X-rays in theory and experiment* (2) and *Radiology physics.* (3) In order to survey the field of radiology, *Treatment of malignant disease,* (4) *Physical foundations of radiology,* (5) and *Röntgenology* (6) may be used. The *Science of radiology* (7) will be of interest to those seeking information about the history of radiology as it has developed in the United States.

In X-ray therapy *The principles and practice of Roentgen therapy* (8) and *Theoretical principles of Roentgen therapy* (9) are useful for the historical approach. In X-ray diagnosis *Röntgendiagnostik in der Chirurgie und ihren Grenzgebiete* (10) and *A textbook of X-ray diagnosis* (11) give broad coverage of the field. The investigator should note that in addition to the above mentioned two divisions of radiology, the field of radiobiology impinges upon or even overlaps the fields of biophysics, biochemistry, cancer research, physiology, botany, anatomy, plant physiology, genetics, and bacteriology.

Those who wish to survey the periodical and book literature of radiobiology will find many good bibliographical tools. Retrospective bibliography includes *Die Röntgen-Literatur* (12) which indexes the book and periodical literature of

the world through 1926. It has a classed arrangement by broad subjects and includes separate author and subject indexes. A disadvantage is that it does not include abstracts, merely listing articles by title. The volumes for the years 1914–25 contain an index of German patents and registered designs of X-ray science. The *Jahresbericht Radiologie* (13) indexes the world literature in annual volumes from 1926 to 1938. It also has a classed arrangement by broad subjects, and includes separate author and subject indexes. The *Zentralblatt für die gesamte Radiologie* (14) is particularly useful because it is world-wide in scope and includes abstracts of articles indexed. The references abstracted in it were also published as a classified subject bibliography in the *Jahresbericht Radiologie* mentioned above.

Bibliographical tools in English include *Index medicus* (1879–1927), the *Index-Catalogue of the Library of the Surgeon General's Office* (1880–1948), the *Quarterly cumulative index medicus* (1927 to present), and the *Current list of medical literature* (1941 to present). The frequency of publication of the latter makes it particularly useful for rapid surveys of current periodical literature in medicine and related fields.

Of much value for comprehensive literature searches are the tools which index and abstract a large segment of the world periodical literature. Among such tools the *Biological abstracts* (1927 to present) is arranged by broad subject fields and includes annual author and subject indexes. *Chemical abstracts* (1907 to present) can be used to survey the bordering fields of biochemistry, biophysics, anatomy, and physiology. It has annual author and subject indexes, and its decennial indexes are effective in making rapid literature searches. *Science abstracts* (1898 to present) can be used to find materials published in the fields of engineering, mathematics, biophysics, and physics. *Berichte über die wissenschaftliche Biologie* (1926 to present) is especially strong in the literature of biology and medicine published in Germany and neighboring countries. In order to survey the biological literature of France, *L'Année biologique* (1895 to present) is useful. *British abstracts*, AIII, attempts to survey the world periodical literature in the fields of physiology, biochemistry, and anatomy. Its index of authors in each monthly issue is a valuable aid in reference work. *Nutrition abstracts and reviews* (1931 to present) can be consulted to locate material on growth and nutrition. *Abstracts of world medicine* (1947–52) is a selective list arranged by broad subject fields, with author indexes included in each monthly issue. A new publication of the post-World War II period is *Excerpta medica* (1947 to present). It is published in fifteen separate sections, each indexing and abstracting periodical literature in a single subject field of medicine. It is meant to be helpful to specialists who are interested in following the literature of a subject field in a thorough way.

In order to survey the literature of Soviet Russia one can use *Meditskinskaia literatura SSR 1928*, *Meditsinskoe bibliograficheskoe biuro. Meditsinskaia literatura SSSR, 1928, 1932, 1935*, and *Sovetokoe meditsiniskoe referativnoe obozrenie*

(1948 to present). The first is arranged by alphabetical subject headings with subdivisions, and has an author index included. Materials indexed are textbooks, periodical articles, compendia, and proceedings of societies and congresses. The latter is arranged under broad subject fields of medicine, with book and periodical literature indexed. Separate author and subject indexes are provided. The third title represents an abstract journal in sections, much like the *Excerpta medica*.

For the literature of radiation cancer one can consult *Index analyticus cancerologiae* (1927 to present). Its abstracts are arranged under broad subject fields and each volume includes subject and author indexes. The American Cancer Society also publishes *Cancer current literature* (1947 to present).

Journals devoted entirely to radiology are listed below:

Radiology, 1923 to present. Monthly, includes abstracts.
American Journal of Roentgenology and Radium Therapy, 1906 to present. Monthly, includes abstracts.
Archives of Physical Medicine, 1920 to present. Monthly.
British Journal of Radiology, 1928 to present. Monthly.
Journal of the Faculty of Radiologists, 1949 to present. Quarterly.
British Journal of Physical Medicine, 1926 to present. Monthly.
Acta Radiologica, 1921 to present. Irregular, articles appear in English, French, and German, with summaries in all three languages.
Journal de Radiologie et d'Electrologie, 1914 to present. Bimonthly, includes abstract section of current radiological literature.
Fortschritte auf dem Gebiete der Röntgenstrahlen, 1897 to present. Monthly, includes abstract section.
Röntgen Praxis, 1929–48. Irregular, includes abstract section of literature.
Strahlentherapie, 1912 to present. Irregular.
Vestnik Rentgenologii i Radiologii, 1920 to present. Irregular, the earlier volumes contain articles in French, German, or Russian, with summaries of the Russian articles in French or German; recent volumes contain articles in Russian, with summaries in French and English.

Cancer research is frequently concerned with radiobiology. Some useful journals are:

Cancer, 1948 to present. Bimonthly, has abstract section.
Cancer Research, 1941 to present. Monthly, has abstract section.
Journal of the National Cancer Institute, 1940 to present. Monthly.
Current Cancer Literature, 1947 to present. Monthly.
British Journal of Cancer, 1947 to present. Quarterly.
Zeitschrift für Krebsforschung, 1903 to present. Quarterly.
Oncologia, 1948 to present. Irregular, contains articles in German, English, French, or Italian, with summaries in all four languages.

The fields of heredity, botany, genetics, and cytology are becoming increasingly important because of the intensive studies being made of the effects of radiations upon cell structure and offspring of animals and human beings

who have been exposed to various types of radiations. For that reason, journals in these fields must be examined for a thorough review of the field of radiobiology.

Annual reviews of interest are *Ergebnisse der medizinischen Strahlenforschung* (1925–1936); (15) *Ergebnisse der experimentellen Krebsforschung und Krebstherapie* (1934 to present); (16) and *Ergebnisse der biophysikalischen Forschung* (1938 to present). (17) The latter review includes some monographic articles on the effects of various types of radiations upon biological tissues. These reviews contain comprehensive bibliographies. A new annual review is *Progress in biophysics and biophysical chemistry* (1950 to present). (18)

The *Year Book of Radiology*) (1932 to present) (19) is of particular importance. Each annual volume is devoted to a review of the periodical literature in radiology throughout the world. The subject is viewed in two divisions: radiologic diagnosis and radiation therapy. Within the divisions are found review articles on such topics as radiobiology, chemistry in cancer, physics of radiation, and radiation protection and hazards. Periodical citations throughout the text would be helpful to the reader who wishes to delve more deeply into the subject. A key to the year books from 1932 to 1941 is the *Consolidated Index, 1932–1941.* In addition to the general subject and author indexes, there are also separate indexes to radiologic diagnosis and radiotherapeutics.

International congresses and their proceedings usually include scientific papers, addresses, and abstracts of research in progress. These are of value in indicating trends of research throughout the world. The following list names some of them: International Congress of Radiology, Verhandlungen der deutschen Röntgen-Gesellschaft, Congrès Internationale d'Électrologie et de Radiologie Medicales, Transactions of the American Roentgen Ray Society, and the International Congress of Genetics (issued as a supplement to the periodical *Hereditas*).

For theses in the fields bordering radiobiology, the U. S. Library of Congress' *A list of American doctoral dissertations printed in 1912* to date (annual volumes), and the H. W. Wilson's *Doctoral dissertations accepted by American universities,* 1933/34–date, are useful in locating needed library materials. It should be noted that these tools include only Doctor of Philosophy dissertations. In order to locate theses at the Master of Science or Master of Arts level, card catalogs of university and medical libraries should be consulted.

The U. S. Atomic Energy Commission has published some bibliographical aids which are particularly useful in following the literature of radiobiology in the new library field of scientific and technical reports. Chief among these are *International bibliography on atomic energy,* (20) *Nuclear science abstracts,* (21) *Isotopes; a three-yeas summary,* (22) and *Radium; a bibliography of unclassified literature.* (23)

It should be emphasized that because of the dispersion of the literature of

radiobiology and atomic medicine, the most useful bibliographical aids will probably continue to be the abstracting and indexing periodicals in the various subject fields of knowledge.

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Medieval Epidemics

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THIS paper will discuss some of the diseases which struck Europe from the fall of the Roman Empire to the end of the Renaissance in general terms, and then present in some detail the most carefully documented of all the epidemics (and perhaps the most dramatic), the bubonic plague.

The most common epidemics of the period under discussion were the plague itself, influenza, syphilis, leprosy, the so-called "sweating sickness," and the dancing mania. Of these, the sweating sickness and the dancing mania are the most difficult to explain today. The English sweat seems to have made its appearance first with the armies of Henry VII when he invaded England in 1485. The symptoms, beside the profuse sweating, were disordered respiration, extreme anxiety, nausea and vomiting, stupor, and lethargy. The crisis occurred in 24 hours, and the only treatment which appeared to have any effect was one of watchful waiting: to stay in bed out of drafts, to eat sparingly or not at all, and to drink in moderation. No preventive was known, and one attack did not render the patient immune to another.

The English sweat appeared many times in the 15th and 16th centuries, and then disappeared as dramatically as it had appeared. Various guesses have been made as to its cause, its mode of transmission, and the best means of treating it; but no satisfactory conclusion has been reached. In many respects the symptoms agree with those of the rickettsial pox first observed in Queens, New York City, a number of years ago, except that the profuse sweating is absent in our present-day disease. Indeed, the English sweat has been thought by some to be a rickettsial disease not common now, and has been compared to miliary fever or scrub typhus.

The dancing mania is even more difficult to discuss. When a person was sick with the sweating sickness, he was definitely and objectively sick and there was no question about it; but a person who had the dancing mania exhibited few organic changes. How much should be laid to the disease *per se* and how much to hysteria, it is difficult to say. Certainly the dancing mania occurred while the ravages of the Black Death were still vivid in people's minds. It may be, therefore, that a large part of the disease was emotional in character; an epidemic spread of something which was truly a disease of a few, but which was taken over by a large group of the wrought-up population. However, other theories hold that the disease may have been caused

by ergotism, due to eating spoiled rye, or that it was the result of a brain lesion (see "waltzing mice").

Whatever the cause, the symptoms of the dancing mania were described thus:

> It was called the dance of St. John or St. Vitus, on account of the Bacchantic leaps by which it was characterized, and which gave to those affected, while performing their wild dance and screaming and foaming with fury, all the appearance of persons possessed . . . They continued dancing for hours together, in wild delirium, until at length they fell to the ground in a state of exhaustion . . . While dancing they neither saw nor heard, being insensible to external impressions through the senses, but they were haunted by visions . . . and some of them asserted that they felt as if they had been immersed in a stream of blood, which obliged them to leap so high . . . Where the disease was completely developed, the attack commenced with epileptic convulsions. Those affected fell to the ground senseless, panting and labouring for breath. They foamed at the mouth, and suddenly springing up again began their dance amidst strange contortions.[1]

This strange disease spread throughout Europe, and no efforts at prevention or treatment seem to have had any success. In one town, where a young girl was afflicted, the town fathers solemnly engaged four men to play music and dance in relays with the patient. Several kinds of music were written for the stricken people; the best known example of these is the tarantella, an Italian dance to aid sufferers who had been bitten by a poisonous spider. (Examples of this can be found in Hecker.)[2] But what the disease really was is still unknown.

In the case of leprosy and syphilis, there is the problem of changes in virulence of a disease. As is well known, syphilis was first heard of in Europe at the end of the 15th century, when it was a much more serious disease than it is now. It killed with the rapidity of present day pneumonia (if untreated), and it frequently led to crippling results completely unknown today. Through the centuries its virulence or man's resistance to the spirochete has changed enormously. Similarly, leprosy advanced over Europe from the Mediterranean countries to the north in epidemic fashion and receded slowly so that today, except for a few foci of infection in Iceland and Greenland, it is unknown on that continent. Yet at one period in the 15th century France alone had no less than 2000 leprosoria to isolate those infected with this disease.

What caused these and other such changes in virulence? To discuss this it is necessary to examine some of the modern theories of virulence and host resistance.

For a large number of communicable diseases, it is now held that a bacterium or ultra-filterable virus is the causative agent. Several still unanswered questions immediately present themselves, however. What causes that strain

[1] Hecker, J. F. C. Epidemics of the Middle Ages. London, Sydenham Society, 1846, p. 87–88.
[2] Ibid, p. 167.

of pathogenic organism to become so virulent at a particular time that many people are affected simultaneously? And, conversely, why, when faced with the same dose of the microbe or virus, do some people succumb to it and become clinically ill, while others are able to fight off the attack?

Alterations in the virulence of bacteria may be due to various factors. Because of the practical character of finding the answer to this, much work has been done on the subject, but no general agreement has been reached. Changes in virulence may be accompanied by (may be due to?) morphological changes in the bacterium, as when the capsule of the bacterium is lost, or smooth forms become rough ones, or clumps or chains of the bacteria suddenly occur. Since virulence is dependent upon the resistance of the host as much as on the properties of the bacterium itself, changes in the immunity of the host are important. For example, measles is a rapidly fatal disease among South Sea Islanders not previously exposed to it, while it is a mild disorder among Europeans who have built up their immunity by sub-clinical doses of it.

Changes in the host also cause changes in the virulence of a particular bacterium or virus. The classic example is smallpox in the human and cowpox in the cow. Generations of passage through a secondary host may bring about attenuation of virulence of some bacteria. Another change in the pathogenic power of a bacteria may be caused by drug-fastness, i.e., tolerance of the bacteria to a therapeutic agent (such as salversan, the sulfonamides, or penicillin). The cause for this change is not clear. It may be a metabolic change, with the growth of alternative mechanisms, or the bacteria may produce more of something which combats the drug (e.g., increased output of p-aminobenzoic acid by staphylococcus aureus in the presence of sulfonamides). A new theory holds that sometimes non-drug resistant bacteria are killed off immediately, and only those mutants which can withstand the therapeutic agent are left alive to reproduce, while still another theory holds that a physiological variation in the ability to decompose proteins, ferment sugars, synthesize amino acids, and produce pigments is involved.

As stated above, disease is caused by two factors interacting upon one another. One is the power of the bacterium to cause the disease; the other is the ability of the host to withstand the attacks of the causative agent. The ability of the host to withstand infection is extremely complicated. The basic defence mechanisms of the body (such as antibodies, agglutinins, phagocytes, and the like) can be aided or hindered in their work by the nutritional state of the body of the host, natural immunity of the species, various physical and chemical agents, fatigue, and the addition from without of some agents which combat the infection. Since this is an individual factor, the question of how large numbers of people can reach clinical illness at the same time is an intriguing one. As Geddes Smith has put it: "[These are] the factors that normally

shape disease prevalence. There must be first an infective agent, then a source or reservoir in which the agent is kept alive, then a vehicle by which it passes to new hosts, then a group of susceptible human beings so spaced that infection can spread from one to another. The causes of epidemics presumably lie within this set of variables or within their possible combinations . . ."[3]

The infective agent changes in virulence from time to time or over long periods of time; for, certainly, scarlet fever as seen by Sydenham was a much more serious disease than it is today. The groups of susceptible human beings change as the four horsemen of the Apocalypse advance or retreat, and usually these changes have been without the conscious will of the people. Where man has stepped in most successfully to change epidemic incidence has been in the vehicle by which disease has passed to new hosts. Because milk is now pasteurized, and (under normal circumstances) people do not drink infected water, some modern epidemics have been forestalled.

Presumably the medieval epidemics followed the same laws; that is, there were reservoirs in which the infection was kept alive between epidemics, some means of conveying the infection to new hosts; and, finally, individuals spaced in such a fashion that the infection could travel from one to another group without burning itself out. In small valleys and other cul-de-sacs whose inhabitants did not travel widely, epidemics may have wiped out large sections of the endogenous population, but they were not conveyed to other groups outside the area. In these cases, the fuse for the train of gunpowder was missing, and no chain reaction was possible.

Plague

Plague is one of the best-documented of all the pests of antiquity—and that from literary as well as medical sources. In discussing this documentation, however, several cautions must be observed. First, many things called "plague" were probably other diseases; in fact, some historians have maintained that the word "plague" merely meant any disease which killed large numbers quickly. Second, it must be pointed out that small reliance can be placed in statistics up to the nineteenth century. The concepts of statistical reasoning appear to be those of a sophisticated population. Just as the astronomical figures of the present federal budget do not mean much to most Americans, so to the ancient Romans, the word for six hundred came to mean any large number or infinity. And, finally, it must be remembered that writers attempting to give a picture of a period are more interested in the effect as a whole than in the accuracy of the details. "To add artistic verisimilitude to an otherwise bald and unconvincing narrative" is the prerogative of writers both before and after Pooh-Bah.

The greatest literary descriptions of the plague which have come down to us are those of Thucydides, Petrarch, Boccaccio, Evelyn, Pepys, and Defoe;

[3] Smith. Geddes. Plague on Us. N. Y., Commonwealth Fund, 1941, p. 126.

but many just as vivid descriptions are buried in works not so well known. Nohl[4] has compiled over 250 pages of contemporary descriptions of the plague, while Hecker,[5] Sticker,[6] and Crawfurd[7] have also collected writings on the subject. To untangle the strands so many hundreds of years later is exceedingly difficult.

Because the plague which hit Athens during the Peloponnesian War does not really come into the period under discussion here, it is only necessary to report that it probably was not bubonic plague but a pneumonic plague, or perhaps even typhus fever. Several features which distinguished the Athenian plague from the bubonic plague of the Middle Ages might be mentioned. No buboes were reported; instead, there was high fever, redness, bilious vomiting, hoarseness, and pain on respiration; there were petechiae thruout the body, and great restlessness of body and mind. However, individuals did recover from this disease, which is rare in descriptions of bubonic plague; and these individuals are described by Thucydides as those in whom "the sick and dying found most compassion."[8] Those who had recovered, also, were immune from a second attack; while another feature which distinguished this epidemic from the later ones was the disappearance of the animals who were the transmitters of the fleas carrying the plague.

In the medieval plagues, it is to be noted, the epidemics usually started at a seaport, where a ship carrying goods from the Orient (the "reservoir" of Geddes Smith) docked with one or more sailors or passengers ill with the plague. All accounts speak of the speed with which those who came in contact with the travellers sickened and died in turn. This leads us to the conclusion that plague was a comparatively new disease to Europe, for which people had little immunity; and also that the necessary means for the spread of the plague (rats with fleas, overcrowding, malnutrition, and poor sanitary conditions) were already present when the first dose of the infection was received. That the plague was usually spread by sea routes is shown by the travels of the disease through what is now Russia. One outbreak of the plague started at Caffa on the Black Sea in 1346; from there it went to Constantinople; and from here it was dispersed throughout the seaports of Europe by the galleys that traded at Constantinople. Northern Russia, indeed, received the plague not from Caffa (for the steppes were efficient barriers to the chain reaction where settlements were distant from one another and travel was light), but years later from northern Germany and Poland.[9]

[4] Nohl, Johannes. The Black Death; a Chronicle of the Plague. N. Y., Harper [1924?]

[5] Hecker, op. cit.

[6] Sticker, Georg. Abhandlungen aus der Seuchengeschichte und Seuchenlehre. Giessen, Töpelmann, 1908.

[7] Crawfurd, R. Plague and Pestilence in Literature and Art. London, Oxford Press, 1914.

[8] Thucydides. History of the Peloponnesian War, Bk. 2, Chap. 47 ff, esp. Chap. 51.

[9] Coulton, G. G. The Black Death. London, Benn, 1929, p. 9.

The description of the plague given by Boccaccio[10] can be allowed to stand for all the plague outbreaks. The first signs were the plague boils or buboes which appeared in the armpits and groin; later black or livid blotches were seen throughout the body; and both of these signs appeared to be forerunners of certain death. No medicines were of any avail, and practically all patients died within three days of the first symptoms. The obvious contagiousness of the disease resulted in many inhumanities; people would not take care of the sick, and many died merely of starvation. Throughout the chronicles, from one end of Europe to the other, we hear the lament: Parents will not visit their children, nor children their parents. Many shut themselves up in their own houses and would not stir; others sought refuge in flight from the afflicted cities, thereby spreading the disease enormously. The dead were not buried with any of the pomp of former times; later the dead were not buried at all, except for the large plague pits in which hundreds were thrown helter-skelter. At Avignon, for example, the Rhone had to be consecrated for burial purposes, and the smell of decaying corpses is recorded in practically all descriptions of the disease.

The only method of combatting the disease was by flight and (conversely) by quarantine; and the conflict between those who were attempting to flee the desolation and those who were determined to keep visitors from the plague cities out of their towns was almost as fatal in some cases as the original disease. Those who had to remain in infected areas covered themselves completely (beak doctors) and held aromatic herbs and vinegar sponges to their noses. While of help psychologically, these methods do not seem to have been very successful. Defoe[11] tells of the butchers who would not even touch the money paid to them, but had the customers throw it into jars of vinegar kept for that purpose. Yet Defoe remarks, "The plague raged so violently among the butchers . . . that it was not advisable so much as to go over the street among them." Later large cities, such as London and Paris, marked all houses where the plague cases were present (see Pepys' red cross and the words, "The Lord have mercy upon us,"[12] and Defoe's reproduction of the Lord Mayor's rules on marking the houses[13]) and stationed guards at the entrances to these houses to keep all inhabitants strictly within doors.

The luckiest were those who could retire to healthful country estates and hold no communion with the cities. Boccaccio's seven young ladies and three young men were some of these; they retired to the country, ate daintily, and amused themselves by telling stories. The Pope at Avignon retired within the Papal palace and allowed only a few—among them Guy de Chauliac, his

[10] Bocaccio. Decammeron. Preface.

[11] Defoe, Daniel. Journal of the Plague Year. London, Constable, 1927, p. 97ff.

[12] Pepys, Samuel. Diary. . . London, Bell, 1928, v. 4, p. 428.

[13] Defoe. op. cit., p. 53–54.

personal physician—to visit him. The "I" of Defoe's tale hides his family safely within the house and does not allow them to venture forth.

How many actually perished of the plague at any one time or over a long period of time? This is a very difficult thing to decide in virtue of the medieval tendency to use round numbers and gross exaggerations. Thus we are told, "nine-tenths died," or "scarce one-tenth remained alive," or "scarce a quarter of the population remained at Avignon," or "seventy died of every hundred," "half and more are believed to have died." A very interesting method of counting the mortality has been worked out by Coulton[14] who examined the English episcopal registers for the number of priests dying, resigning, being replaced, etc., during the plague years. While taking into account the fact that the priests lived better than the general run of the population but had to visit more sick people than most of the population, Coulton concludes that the mortality was probably close to one third the population. This is probably as near as we can now come to an estimate of plague mortality.

What results did the visitations of the plague have on people? First there was fear. People were afraid for their own lives, and all else went by the boards. Inhumanities are reported from all parts of Europe. Among them was lack of attention to sick people, including the flight of physicians and priests;[15] the breakdown of family ties; and the desire to find a scapegoat. This last resulted in two very different acts, one the flagellants, the other the persecution of the Jews.

The flagellants were individuals who gave up their accustomed lives for a wandering life of 33½ days (representing the 33½ years of Christ's life on earth) during which they scourged themselves and exhorted all to repentance. Although today we think of flagellation as a sexual aberration—and this was probably true in medieval times to a certain extent—it must also be emphasized that here we have for the first time a lay attempt at divine help by people who were deeply disppointed by the emptiness, the formalism, and even the lasciviousness of the contemporary church. It may, indeed, be considered a forerunner of the Reformation.

Where the rumor first began that the Jews were well-poisoners is hard to say, but it probably came from that group of superstitious, ignorant people who believe any dramatic story, no matter how fantastic. Probably the rumor sprang up from this source in many countries at about the same time, together with a belief in an order which the Chief Rabbis of Toledo are supposed to have given for poisoning wells throughout Europe. (An apocryphal tale of a secret Board of Directors of Jewry crops up time and time again, even to our own day. See, for example, the Protocols of Zion published by Henry Ford.)

[14] Coulton. op. cit., p. 34ff.

[15] Schullian, D. M. Manuscript of Dominici in the Army Medical Library. J. Hist. Med. 3: 395–99, 1948.

There was also supposed to be a series of orders for forging the currency, the ritual murder of Christian children, and the like. Jews were tortured until they confessed and some of their confessions are wonderfully imaginative documents which might be compared with interest with those of the Salem witches. From their confessions they were then burnt at the stake. In 1348 the Pope issued two bulls forbidding this practice but his words were flagrantly disregarded. In Strasbourg, for example, the populace stood up for the Jews, but the Bishop insisted that all who did not vote for the extermination of the Jews were in league with them and worthy to be killed also. However, burning at the stake was one of the best ways to die—the chronicles of the Jewish communities of Nürnberg, Speyer, Mayence, Esslingen, and other German towns read something like the battle of the Warsaw ghetto. Altogether about one half of all the Jews of western Europe perished as a result of these persecutions.

One of the greatest changes wrought by the plague was in the economic sphere. Because there were fewer artisans left after the epidemics, the positions of these people became better. They could ask more for their labor and get it, and they could lay down rules for themselves and all who worked in guilds with them. When the nobles and the clergy attempted to turn back the clock to pre-epidemic times, many Peasant revolts resulted; and although most of these were put down bloodily, the uprisings paved the way for the economic reforms of the following centuries.

In the sphere of religion, too, the Black Death brought in a more questioning attitude than had prevailed before it. During the epidemics it had been strikingly brought to the attention of the ordinary man that the priesthood was composed of men like himself, who feared death as he did, who demanded higher wages for work when they could get it, and who even went on strike in times of universal distress. It is not surprising, therefore, that a demand for reform within the Church was heard everywhere. The Lollards, those harbingers of the Protestant Reformation, are described by a contemporary thus: "They multiplied exceedingly, like budding plants, and filled the whole realm everywhere, and became as familiar as though all had come forth upon the same day."[16] The Black Death, it has been said, brought man and God together again.

While the plague cannot really be said to have caused any of the changes which followed it—whether in a religious, artistic, or economic sense—it came when the countries of Europe were prepared for a change, and it swept all before it as if it were a flood tide. Pasteur's remark that "chance favors the prepared mind" can be paraphrased here. The chance of the plagues of the Middle Ages resulted in upheavals in the socio-economic religious life of Europe which would probably have come about in any case, but which, without the plague, would only have come about at a greatly reduced speed.

[16] Kingston Chronicle, 1382.

Instructions for a Medical School Library Planning Survey

By Lora-Frances Davis

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THIS paper is written in response to the actual problem of having to apply the surveyor's techniques to medical school library planning. In his "Critique of the Library Survey," Dr. Goldhor gives the cue:[1]

> The surveyor can collect his facts only by using the standard methods of social science, viz, by observation of the phenomenon in question; by talking to people who presumably know something about the phenomenon (the interview method); or by getting them to write out what they know (the questionnaire method); and by studying the documents and records which are available and relevant.
>
> Clearly these methods must be used correctly if they are to produce accurate and truthful data, but it is not generally realized that these methods are neither simple nor obvious to apply.

Basic Concept. Following Dr. Goldhor's analysis in reverse order, one studies first "the documents and records which are available and relevant." By talking with key people in the planning of the medical school and perusing any written information available, one learns the history of the movement to establish the school, its aims and probable organization, and any plans for coordinating it within a university system and with other institutions and agencies.

For an adequate background the surveyor should learn the answers to these questions: Is the medical school to be a part of a university? If it is at the site of the university? what kind? state? private? endowed? land-grant? combination of these types? Does the university have a constitution or charter? How are the libraries of other schools administered as shown by the university's organizational chart? What professional schools are there? What others are anticipated? Is a postgraduate medical education program planned? Will there be a school of public health? What graduate degrees are awarded in the science fields? Are there good collections in the basic sciences adequate either for use or for supplementing the use of the medical school as well as of the students, research workers, and faculty members for whom they were purchased? Whether the medical school is at the site of the university or in

[1] Goldhor, H. Critique of the library survey. Illinois Libraries 32: 610, November, 1950.

another location? What medical and science library facilities are already in the vicinity, either in colleges, hospitals, health departments, or medical societies? To what extent can these be utilized by the medical school?

Good working relations with other libraries are essential for rendering the best possible service to patrons, for creating good will for the school, and for the more tangible value of using collections already available while the new library is being built up. Learn the basic philosophy upon which the school is to be established, for the library must reflect that philosophy in its collection and its service policies.

QUESTIONNAIRES AND STANDARDS. The results of numerous questionnaires are available in published and in preliminary reports of the various committees of the Medical Library Association; the Committee on Standards for Medical School Libraries is nearing the completion of its final report. For that reason further questionnaires are not advocated.

However, standards do not solve all the problems of planning. The purpose of standards is to show the basic minimum requirements; they cannot, however, show the deviations necessary to provide the best collections, services, and techniques for a particular situation. Dr. Goldhor[2] says further:

> These, after all, have no greater justification than that they are the result of the pooled judgment of a group of practicing librarians. Because they are national standards they tend to be stated broadly and to be not far from practice, thus saying little to the best librarians or to those experimenting in new directions. Furthermore, the use of such standards is valid only for the library which accepts for itself the goals or objectives on which the standards themselves rest.

OBSERVATION AND INTERVIEW. "Observation of the phenomenon in question" and "talking to people who presumably know something about the phenomenon" are techniques medical librarians have been combining in the method of the survey tour. This provides an opportunity for the new library to profit by the experience, successes, and failures of others. Unfortunately, though the success of a library may be widely acclaimed, the trial and error processes and the actual current procedures which make it a success are seldom found in print. Some libraries have long been accepted as being of great worth; consequently, little at all is ever written about them. Further, most librarians have excellent ideas which do not fit into their particular systems or which would be too expensive to inaugurate in an established library; in a new library these ideas might bring more efficient service at no added cost. For example, many older libraries are dissatisfied with their classification systems but find it far too expensive and time consuming to re-catalog. So it is that planning surveyors visit other medical libraries seeking to choose the best techniques, systems, and service policies, and to establish the size of collection and staff needed to provide these services for a particular school.

[2] Ibid.

PLANNING THE TOUR. For such a survey a vantage point is needed. It is highly profitable to study a good medical school library of the same type, preferably from the same section of the country, and comparable to the size anticipated for the new school. This study should be in sufficient detail to provide a thorough understanding of the basic features considered in a planning survey: 1) collection (size and cost), 2) administration, 3) library staff, 4) acquisitions, 5) binding, 6) cataloging and classification, 7) arrangement of the collection, 8) clientele, 9) budget, 10) building plans.

Obviously the itinerary will be limited by time and money, and it is more economical in both categories to make a travel circle than to undertake shorter trips in several directions. Desirable farthest points should be selected and stop-over possibilities and time schedules verified with transportation lines; then, the itinerary with the most benefits may be chosen. The more the surveyor knows about various medical schools and libraries the easier it is to choose wisely. Checking the medical school catalogs and the BULLETIN will help, as, oddly enough, will travel articles, current popular and advertising magazines, and, of course, information and suggestions of expert medical librarians.

While the itinerary should predominantly include medical school libraries, many good practices can be adapted from society and clinic libraries. Their librarians usually have a wide professional acquaintance and can provide valuable tips on places and people to visit. The surveyor should remember that he is seeking: 1) working practical ideas from libraries similar in size and type; 2) cost estimates, the latest devices and systems advocated, errors to avoid, and steps in organization to follow from the newest libraries; and 3) the philosophy and inspiration which come only from seeing great and valuable collections and from talking with leaders in medical librarianship.

TECHNIQUES APPLIED. A surveyor's technique is something he develops himself. However, there is but one successful basis for interviewing, whether it be in social work, medicine, or a library survey—mutual interest and understanding. The surveyor should explain first the type of survey he is doing, the problems involved in the library he is helping to plan, and his reason for visiting the particular library. With this background the librarian will be in a position to give the most aid possible.

In his turn the surveyor must lend a sympathetic ear and an understanding heart, for to every good librarian his library is his castle. The surveyor will find that the oddest castles are the results of peculiar circumstances and that their librarians are usually working hard for improvements. Careful attention should be paid to the librarian's account of his library's history, organization, and future plans. It is easier and more profitable to proceed with the librarian's own routine for visitors, since it keeps the interview informal. However, the surveyor should, in particular, ask to talk with key people on the staff in

regards to the problems involved in their part of the work. This provides an excellent opportunity to observe the degree of satisfaction the library staffs derive from working under various types of administrations. Careful notes should be taken on basic points, and data to be used for comparative purposes should be secured from each library insofar as possible.

Finally, before writing the report the surveyor should make a final check with the people in charge of the medical school planning, for plans change. What yesterday was a traditional type medical school may have grown into a combination of several or all of the schools of medical sciences—dentistry, pharmacy, medicine, nursing, and veterinary medicine. To be a significant and unifying force—"the hub of the wheel"—the library plans must be adequate in collection, staff, and service policies.

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Impressions of the Course in Medical Libraries at Emory University*

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THE Medical Librarian may ask herself what can be gained by taking five weeks away from her position to take a course in Medical Libraries. From my summer's experience at Emory University, I can say that several factors make it worth while. First, and for some, foremost, she becomes eligible for certification by the Medical Library Association, provided she meets the other qualifications of a bachelor's degree and one year's library school training. Of more importance are the intrinsic values. She is in daily contact with other medical librarians with similar problems, and one of the leading medical libraries is at her disposal for the study of its resources and methods of operation. Routine duties or responsibilities which are a part of her regular position do not occupy her, and she has full opportunity to take advantage of the surroundings.

The purpose of the course, in Miss Jordan's words, is "to give an introduction to medical library resources and their use in medical education, medical research, and care of patients. A major portion of the course will consist of a survey of the literature and its bibliographical control in the broad fields of anatomy, physiology, medicine, surgery, etc. . . . Consideration will also be given to the special application of library techniques, administrative organization, procedures and practices to the field of medical librarianship." To achieve this purpose required an extremely crowded five weeks, especially since the course called for a term paper.

There were eighteen students in all, a few more than the optimum number for use of the library facilities, but with mutual forebearance and consideration we got along splendidly. Dora Echeverri was a young student who graduated this year from an eastern library school, and was on a scholarship from her native Colombia. Upon return to her country she was to plan, organize, and administer a university medical library of about 10,000 volumes at Medillín, for which the Kellogg Foundation had given $6,000 for books. She would have no trained staff, and no library schools in the country from which to secure any. Her problems were manifold, and Miss Jordan devoted quite a bit

* Read at the meeting of the Mid-West Regional Group, Medical Library Association, Indianapolis, Indiana, October 17, 1952.

of time to her. All but three of the class were library school graduates. One recent graduate had accepted an internship at Vanderbilt. Another *had* taken an internship there and was to become Librarian of the University of Miami. Six were with the Veterans Administration, and one was a school librarian. The Armed Forces were represented by the Medical Librarian from the Army-Navy Hospital at Hot Springs, Arkansas, and myself.

The course was well organized in this, its second year. Miss Jordan had made a comprehensive study of similar courses given throughout the country, and had used them in shaping her own. She mentioned that given by Miss Wilma Troxel at the University of Illinois as being especially valuable. We were given an outline showing exactly what subjects were to be covered each day, and the time of the examination. Other outlines given us included one to be used in studying reference books, an outline of types of reference tools to be discussed for each subject field, an outline to be used in studying periodicals, forms for use in term papers, forms for problems, and a list of background reading for each subject covered. Thus, from the start we kept our references in good bibliographical form according to the samples and instructions given us.

On the first day our instructor broke the news of the term paper. Each student could take some problem of concern in her library and attempt to solve it with the help of the authorities in the field. Tracking down these authorities, verifying the references to their articles, and putting these references in correct form according to Fishbein's *Medical Writing*, was no small part of the preparation. This brought home as nothing else would have done Miss Jordan's often reiterated words, "Verify your references." We got the point of view of the physician-author struggling to write an article for publication and to record his references accurately and consistently in accepted form. Subjects of the papers included centralization versus decentralization of the book collection, periodicals for the dental library, micro-cards, floor plans for the various types of libraries, what the student librarian expects of an internship, and how to conduct a survey.

Our basic texts and guides for the course were Brodman's *Bibliographical List for Medical Libraries*, with the 1951 Supplement, and Doe's *Handbook of Medical Library Practice.* (Perhaps I should give complete and orderly bibliographical data to demonstrate that my training at the hands of Miss Jordan has not been for naught.) Also, frequently used for background reading was the BULLETIN OF THE MEDICAL LIBRARY ASSOCIATION.

To give us a background in medicine, each doctor who lectured gave a general discussion of his field including a brief history and current trends, emphasizing whatever aspect of the subject he chose. Miss Jordan followed this by instruction in bibliographical and reference tools available in the field. Medical terminology was dealt with as a separate unit and not as an integral part of each subject.

In the discussions of the various reference tools, the Brodman bibliographical lists were used as an outline and in the margins we pencilled Miss Jordan's comments or recommendations. Indexes, abstracts, reviews, bibliographies, dictionaries, directories, biographies, encyclopedias, histories, textbooks and monographs, and periodicals, all were considered, both the general medical works, and those in each subject field wherever they existed. Class instruction was supplemented by problem solving which put into use what we had learned about the various tools.

On the first day, Dr. Wood, Dean of the Medical School at Emory, outlined the preclinical and clinical subjects which constitute a medical course. The clinical subjects often paralleled the departmental organization of the hospital, obstetrics, pediatrics, internal medicine, to cite a few. He told us that the practice of the last 50 years has been to create an environment for learning, especially in the clinical subjects, by hospital rounds, conferences and clinics, rather than by formal lectures. Dr. Wood believes that the medical librarian is engaged in medical education, and that she can do much to forestall the "mental death" of which Sir William Osler speaks, by stimulating the doctor's reading. The librarian does this by making the medical library inviting and the literature easily and readily accessible; thus, learning becomes easier and more attractive.

The second day of class was devoted to medical terminology. Two days were given to general medical reference works, their coverage, arrangement, and special features. *The Index-Catalogue . . .*, *QCIM*, *Chemical Abstracts*, dictionaries, and directories were among the tools studied and used in solving problems designed to bring out different points which one might or might not stumble onto during moments snatched from routine library duties. For example, some of our problems involved translation of key words in foreign languages before we could begin seeking the solution. In looking up these words, we became acquainted also with the meaning of the medical terms. The distinction between dictionaries all in one foreign language, and polygot dictionaries, such as Veillon's, became apparent. In addition to the problems, excellent and thorough reports on *The Journal of the American Medical Association* and *The American Medical Directory* were given. Thus, I discovered new mines of information and virtues in these old friends.

The special subjects were started on the fifth day, devoting a day to each in the following order: anatomy, biochemistry, physiology, bacteriology, pharmacology, medicine, pathology, and surgery. Two more days were devoted to group reports by the class on radiology, anesthesiology, neurology, psychiatry, obstetrics and gynecology, pediatrics, public health, and EENT. While the reports gave us good experience, we had insufficient time and lacked the prerequisite background to cover the fields in the way that the doctors and Miss Jordan would have done. From the viewpoint of the medical librarian

of a small hospital, I feel that the course was given over too much to the preclinical side. I would have liked an extra day on pathology, medicine, and surgery, and one day spent on each of the subjects covered by the reports. However, the course was limited to a brief five weeks, and several of our class would be working in large university and research libraries. Obviously, no course could satisfy equally, in all respects, students with such a wide variety of backgrounds and interests. An oral quiz terminated the first part of the course.

In review of this part, many benefits were derived from it. I gained a new respect for the places of history and biography in medicine. Emory has a fine historical collection of which an original Vesalius is the highlight. Great men, such as Laennec, Halsted, and Osler, became personalities instead of mere names. This was true also of pioneers in the medical library field, like John Shaw Billings, and outstanding contemporaries as well.

The lectures brought us up-to-date on the current trends in medicine and medical research, and on the new techniques developed to facilitate research such as the blood pressure cuff which records the subject in motion. We learned about the many ramifications of medicine into fields such as radioactivity, biochemistry, and public health. This brought out the relationship of the medical man to the radiologic physicist, the organic chemist, and the sanitary engineer, and the interdependence of departments, such as radiology, bacteriology, and pharmacology.

The study of periodicals proved to be most important and fascinating. We appreciated the guideposts through the flood of medical literature in the modern market. Each doctor mentioned the journals which he found especially useful in his field, whether of the clinical, review, or research type. We gained some insight into the men and trends behind these journals, and their relation to the papers used in the programs of the meetings of various medical organizations which are published as articles at a much later date. We became aware of the vast field of foreign literature. Did you know that there is an index to Russian literature of which only a few copies exist? The influence of wars and other economic and political events in shaping the policy of periodicals and medical words was of interest. I was surprised to learn that the *Journal of Biochemistry* is published in Japan in German, the language of many foreign medical works. We were given lists of leading periodicals in each field, and one exercise in each subject was to study at least five periodicals according to our outline. In this way we learned to evaluate them quickly and comprehensively. Special features were brought to our attention, such as the clinical pathological conferences in the *American Journal of Medicine* and the *New England Journal of Medicine*. Incidentally, we each had a chance to attend a clinical pathological conference at Emory. Also, we became alert to changes in names and policies in the publication of journals. The professor of pharmacology had good words

to say for the publications of leading drug firms, the extensive research at these concerns, and the great value of their publications in keeping abreast of the new developments in drug therapeutics.

The last part of the course dealt with what was called at Emory services to the public, and technical services. The former included reference and circulation work; the latter, all of the "behind the scenes" work necessary to prepare material for the use of the public. These services were covered as follows: one day each to "The Library and the Community," acquisition, periodicals, circulation, and Medical Library Association certification; two days to classification and subject headings; and two to reference. On the last day we gave brief reports on the term papers which the class voted to hear.

Our instructor gave us valuable hints on how to arrive at answers to reference questions. She demonstrated the ways in which we could narrow the field of search, limiting it by time, language, phase, sex, race, case reports, statistics, and other factors. Especially she admonished us to *listen* to what the patron has to say so we know what he wants before we attempt to answer his question. We received many words to the wise on proper and ethical deportment in the library, such as "Don't even spell words over the telephone without authority to back you up," and "Don't repeat all you know."

For our exercises in classification and subject headings we were given books which were on more than one subject, or had more than one viewpoint, such as Fineberg's *The Antihistamines* and Ford's *Diseases of the Nervous System in Infancy, Childhood and Adolescence*. These books were to be classified according to the two editions of the Army Medical Library Classification, The Library of Congress, Cunningham, Dewey, and the Boston Medical Library systems. After we had done this and had assigned subject headings as we saw fit, Miss Jordan showed us the results of a survey she had made of several medical libraries, giving a variety of classification numbers and subject headings for the same books, thus, emphasizing to us that what is a good classification and subject heading for a certain book in one library collection may not suit the needs of another.

Circulation work was merely touched on. We were told that library rules should be molded to conform with the principles of getting the material to the most people when they need it.

The course was on a postgraduate level. How we apportioned our time, and what we got out of it was largely left up to us. Miss Jordan had regular conference hours when we could, if we wished, discuss our particular problems, and obtain help and guidance. We had an opportunity to examine the staff manuals which were written in clear, simple language, very detailed, and very excellent. We could tour neighboring libraries; for example, anyone interested in public health could visit the Communicable Disease Center Library in Atlanta.

Miss Jordan created an environment for learning. She introduced us to the basic broad fields of medicine and the basic reference tools; she laid down the principles to be followed in the major fields of classification, reference, relations with the public, and circulation, but she was not didactic. She emphasized several times that she did not want us to go back home and say "This is right because it is the way it is done at Emory. This is the way Miss Jordan runs her library *but good*." Rather she wished to stimulate us to solve our particular problems, since what is the right thing to do often depends on the local situation. However, by finding out how others meet their problems, we are more likely to deal intelligently with our own.

Notes from London

ONE of the minor troubles of the librarian's life is the Duplicated Letter. This is by no means a new phenomenon, but it is one that has reared its ugly head several times recently and we fear that it may be on the increase. The practice to which we refer is that of addressing identical enquiries on some point of medical bibliography or history to librarians in various parts of the world. A more or less typical example would read as follows:

Dear Sir,

I am writing a thesis on the Life and Work of Hippocrates. So far I have been unable to find out where he took his M.D. degree, and I should be obliged if you could give me any information on this point. Any information on the courses and licensing regulations of the Greek medical schools would also be appreciated, and if you have any medical doctors' diplomas of that time I would be glad if you could let me have photostat copies.

Very truly yours,
Egerton Y. Davis

The procedure is to have this letter duplicated and dispatched to anything up to a dozen libraries. I have known cases in which librarians have received carbon copies, but it is more usual for the sender to have a number of textually identical letters typed and (as an extra piece of camouflage) to address the librarians by name. We were caught out very badly by this form of enquiry the other day. A friend in another medical library telephoned to ask if he could borrow a certain book in order to complete the answer to a current enquiry. We remarked that it was an odd coincidence that we had just been looking at the book in question on behalf of one of our own correspondents. Whereupon we were both struck by the same thought and we soon discovered that we were dealing with our old friend the Identical Letter. Subsequent enquiries among other colleagues disclosed the fact that this particular request had been sent in identical terms to four London librarians. I suppose it is a sign of a mechanistic age—"team work" in medicine and all that; but what a lot of time and effort it wastes and how it enfuriates the man who may have spent an hour or more on the quest only to find that his colleague up the road had the answer on a plate. We discussed various remedies for this complaint and one of my friends suggested that the best thing would be to send a series of identical replies from each of our libraries.

* * *

A special Easter Vacation Course held at the School of Librarianship in University College, London, took the form of an Inquiry into Cataloguing Principles and Practice. The course lasted five days and covered such subjects

as Current Research in Cataloguing; Reconsideration of the British Museum Rules; Regional and Subject Union Catalogues; Mechanical Sorting; and Cataloguing in University Libraries. Each morning and afternoon session began with a paper by an acknowledged expert and this was followed by a discussion. The paper on "Cataloguing in Special Libraries" was given by Mr. L. J. Jolley, Librarian of the Royal College of Physicians of Edinburgh, who drew largely upon his medical library experience and gave a very thorough exposition of all aspects of the subject. Mr. Jolley stressed the necessity for a re-examination of many of our ideas regarding cataloguing. It was especially important that there should be a clear understanding of the purpose and function of the catalogue in any particular library; it might be possible to discard many practices which were only maintained out of respect for tradition. Cataloguing techniques must keep pace with the actual requirements of the modern medical library. Research is needed on the question of the use of catalogues by readers and staff respectively. All interested in cataloguing will wish to study these propositions at their leisure and it is good news that the papers given in the course are to be published in book form.

* * *

The announcement in the *Lancet* of April 4, 1953, (p. 689) that a small proportion of each weekly issue is now being printed on India paper for transmission to distant countries by air raises all kinds of interesting possibilities. We wonder whether this service will introduce new complications into the age-old question of priorities. The medical discoverer of the future will have to take care that his preliminary communication printed and posted one day does not get pirated on the other side of the world the previous night.

* * *

The hundredth birthday of the Royal Photographic Society has led to many feverish searches in the bookstacks here. There has been no lack of material for the purposes of exhibitions, radio programmes, and write-ups on the Society and on the general history of photography, but the medical aspects have provided a real problem. The highly flourishing Medical Group of the Society is organizing its own celebrations and had issued invitations to an exhibition entitled, 100 Years of Medical Photography, which remained open from April 7 to 30, 1953. The medical libraries were asked to assist by supplying historical references on medical photography together with actual photographs or early reproductions from photographs, and this is where the trouble started. Early examples of clinical photography are to be found both in books and journals (those in the History of the War of the Rebellion at once come to mind), but we wanted to find the very earliest photographic illustrations in medical literature. A number of quite good examples were found, but it was as the result of random searching and a considerable amount of luck rather than by the use of any of the ordinary bibliographical aids. The enquiry did

provide a good example of the way in which our ordinary indexes break down on some questions. We could have supplied vast numbers of references and examples regarding the evolution of anatomical illustration, the development of copper plate and mezzotinting, the introduction of colour printing, the use of etching, lithography, and aquatint, but when it came to finding photographs more than about seventy years old we were stuck. The annoying thing is that we know the photographs are there; we have seen many fine specimens over the years. It only shows the necessity of observing Captain Cuttle's injunction, "When found, make a note of."

* * *

The Osler Club of London was founded in 1928 by Drs. A. W. Franklin and W. R. Bett to encourage the study of the history of medicine and to keep green the memory of Sir William Osler. The Club has always received strong support from the medical librarians of London, many of whom belong to the special category of lay members. The Club meets about six times a year, usually in the rooms of the Medical Society of London. In recent years many of the papers read have been concerned with medical libraries and bibliography, and the cooperation of the librarians has made possible the exhibition of rare books and "association" items relating to the subject of the evening's discussion. The meeting on January 16, 1953, took the form of a symposium on the History of Medical Journalism. Mr. Leslie Morton gave a general account of the development of medical periodical literature; Dr. William Brockbank dealt with the history and present state of Provincial medical journalism; and Mr. R. Scott Stevenson entertained the members with a breezy account of his experiences as a member of the editorial staffs of the *British Medical Journal* and the *Practitioner*. These papers provoked a vigorous discussion and the evening was voted a great success. On later reflection, however, we realised that nearly everything that had been said had reference to the history of medical journals and not to that of medical *journalism*—which is a different subject and one which still awaits its historian. Dr. Brockbank's valuable paper was published in the *Lancet* of February 28, 1953, p. 433.

The Osler Club possessed a library which was almost completely destroyed during the recent war. It is intended to rebuild the collection, which is strictly confined to Osleriana and to writings on the history and bibliography of medicine. The existing nucleus is housed in the Library of St. Bartholomew's Hospital Medical College and is in the care of Mr. John L. Thornton.

MISS MARION F. DONDALE

President of the Medical Library Association 1953–54

President's Page

MARION FRANCES DONDALE

President, Medical Library Association 1953–54

"I entered librarianship not merely by the back door but over the back fence. I have always preferred back country, winding roads to highways, and get more pleasure from traveling than from arriving." Be it back door or back fence, our new President's circuitous route has provided her with a perfect background.

From the time she was allowed out alone she explored the public library and browsed in all its less frequented stacks, stood aside to watch the procedures at the loan desk, and examined the catalog. Though knowing nothing of the profession of librarianship and never thinking of becoming a librarian, she was one of the library's most faithful and interested patrons.

Marion Dondale was born in Boston, but moved early to Somerville, a suburb. She entered Somerville High School with the expectation of becoming a grammar school teacher, but was urged midway through school to prepare for college and, by her art teacher, to prepare for State Normal Art School. Since she was the oldest of a large family and a college education would be achieved largely by her own efforts, she prepared for both. As a result of this change in direction, her preparatory courses were those given for the hardest of all schools to enter, Massachusetts Institute of Technology. She remembers vividly the spring afternoons she spent taking the former three-hour M.I.T. entrance examinations.

This was the first zig of her zig-zag course. The next was in college where she took all of the courses offered in mathematics and physics except surveying and spectroscopy. She was planning to be a mathematics teacher, with a love for mathematics, but a not yet recognized coolness toward teaching. She spent a summer in Amherst and found the country so beautiful that when promised a position at the Agricultural College if she could acquire shorthand and typewriting, she did so, and, after getting an A.B. degree at Boston University, she became clerk of the Department of Microbiology and secretary of the Graduate School there. While there, she studied elementary microbiology and helped to edit a textbook on the subject. On weekends, 8 to 10 mile walks were common and the view from King Philip's Seat, pictured on the cover of *Holiday* last year, was very familiar. She soon knew all of the 13-mile trail of the Holyoke range well.

Money, she says, was the sole reason for her coming to Albany as scientific

secretary to the Director of the State Laboratory, and although she had already shown erratic tendencies, she was encouraged by a casual conversation with Dr. John Ferrell, then Director of the International Health Board of the Rockefeller Foundation. Asking about her preparation for the work she was doing, he said he supposed she had had a great deal of biological science. When she confessed to having had only one course in high school and said that she had majored in mathematics at college, he interrupted, "Never apologize for training in mathematics, young woman. There isn't anything you're not prepared to do."

At the end of three years she resigned with the idea of going to library school because she had become interested in the work of the Laboratory Library, but she was thoroughly discouraged by a registrar who said, "Why should you want to be a librarian? You may never get as high a salary as you're getting now. Very few librarians get as much as you can reach where you are." The registrar, probably not impressed by mathematics as a preparation for library school and thinking that she would never gather any moss, emphasized the vast amount of general information a library student must acquire. With no one to advise her, she felt that she would be only a public librarian at the end of the year, for the majority of courses would offer nothing of value in the only type of library in which she wanted to work. So, when she was asked if she would care to become assistant in anatomy at the Albany Medical College, remembering Dr. Ferrell's remark, she accepted. At the medical college, Miss Dondale took the regular courses in histology and embryology in which she assisted the Professor, part of the course in gross anatomy, physiology, pathology, and neurohistology and pathology. She attended clinics and special lectures and went back to college for chemistry courses she had missed. In 1933 she was asked to take charge of the library, bought some books, and started to study. This included a library school course in cataloging and classification, in which only the Dewey Decimal system was taught, but when a new dean requested that another system be adopted, she reclassified and recataloged the library. When she later applied for admission to the Columbia School of Library Science, she had passed the age for enrollment by three months. Since then she has continued to learn by experience and reading. She has learned so well and her services give such satisfaction to her patrons that our State Medical Library in recent years has rarely seen anyone from the Albany Medical College.

Miss Dondale has missed only three meetings (1939–41) of the Medical Library Association since her first in 1935 and has served on committees continually since she first ventured to speak in a meeting in 1947. She has served as a member of the Exchange Committee (1947), the Committee on the Revision of the By-Laws (Chairman 1949–50), the Subcommittee on Certification (Chairman 1952–53), the Committee on the Handbook (1951–),

and as a member of the Board of Directors from 1948–51. The M.L.A. members present at the Boston meeting remember her expert handling of the Revision of the By-Laws, which seemed to hold everyone's attention as much as the unfolding of a Sherlock Holmes mystery. She was Chairman of the Program Committee and of Convention for the 1952 meeting at the Lake Placid Club, but still finds it hard to realize that she has been given the highest office in the profession for which she failed to find education twenty-five years ago.

Miss Dondale's outside activities have been chiefly in church organizations. For several years she was an inconspicuous member of the choir of the Episcopal cathedral in Albany, and edited and published a small paper for the Choirmasters' Association of the diocese. She taught church school classes and was counselor for young people's organizations. At present, she is organizing a lending library in her parish. Popular among her friends as a sponsor, she has eight godchildren with whom she has a wonderful time.

She has been active in the local alumnae association of her college sorority, Kappa Kappa Gamma, of which she has been president and a delegate to the national convention (1948). One of her fellow-members in Albany tells me she lifted it from a moribund state to one of constant activity.

Her hobby is illuminating and her work was represented in the art show arranged by the medical students last year. She has plans for a hand-lettered and illuminated book for the Bishop of the diocese when M.L.A. activities allow spare time. And each of you who possess a Certificate of Medical Librarianship has a professional sample of her talent for engrossing.

She spends a large part of her income on books, but now finds it imperative to discard some when the tables and chairs are full. Even 500 are more than she can keep properly dusted.

For her retirement Marion plans to live in the country (her only regret in being a medical librarian is the necessity of living in a city), to spend a summer in an English village, and to make recordings of books for the blind.

HEATH BABCOCK

Editorials

THE IMPACT OF WARS ON MEDICAL LIBRARIES

Wars have been the enemies of libraries throughout the ages. The very building up of a library requires the arts of peace and a civilization which values knowledge above brute force. A nation on a war footing has nothing left over in its economy for cultural pursuits unconnected with its war effort, as the experience of Sparta, the lands under Genghis Khan, and modern Russia shows. In addition, wars lead to totalitarian governments, with their fear of opposing ideas and their hunts for heresies. The closed book and the closed mind are cause and effect; book burning by bigots and by fire bombs bring the same results.

All this has been realized for centuries. "Almighty Author and Lover of Peace," said Richard de Bury, Bishop of Durham in the 14th century, "scatter the nations that seek after war, which harms books beyond all pestilences. For wars, which lack a ground in reason, make furious assaults upon all that is opposed to them and, discarding the governance of reason, proceed without discreet judgment and destroy the vessels of reason." In general, however, medical libraries have been relatively immune from such direct assaults. Wars have had their impact on medical libraries through inflations, which make it difficult or impossible for the libraries to afford books; through drafting of its manpower; and through the allocation of insufficient raw materials to cover all civilian needs, resulting in small editions of medical titles, or the use of old buildings and equipment when new ones are necessary. Medical libraries have had to take their place, also, among other civilian institutions, and the destructiveness of fire and bomb have fallen alike on the factory and the library.

Not only have libraries in general been under attack recently as hot-beds of heresy, but now, perhaps, we are beginning to see a more direct assault on medical libraries in the western world, one which is aimed at their primary function as transmitters of information. In the United States, at any rate, two disturbing signs have appeared. At present they are the "cloud no bigger than a man's hand," but where they will lead is anyone's guess. The first is the publication of so many medical papers as separates by the military forces in security classified documents, making them unavailable to all who have not been "cleared" for access to such documents. The amount of information which must have been resought, the number of experiments which must have had to be repeated, the number of hours which must have been lost by this policy is disturbing to contemplate.

The second is the fact that "security clearance" in general is not enough

to allow access to these papers; it is also necessary for the user to show his "need to know" before the security classified information can be given to him. Idle curiosity is to be discouraged, the order implies; yet anyone with any knowledge of the history of science must be aware of the value of chance information to the prepared mind. This second impediment to the free exchange of knowledge may be more serious than the more obvious first block, because when browsing is discouraged, the scientist is not even aware of what he is missing. How long an inbred science can continue to advance is unknown, but from past experience one may indeed fear for American medicine and medical libraries. The conflict between control of thought necessary for self-preservation in this time of real danger and our traditional freedom of thought vital to progress in science should be studied with great care and thoroughness. "For wars, which lack a ground in reason . . . discarding the governance of reason, proceed without discreet judgment and destroy the vessels of reason."

A CUMULATIVE INDEX?

The BULLETIN has now completed its fortieth volume, and suggestions have been received that a Cumulative Index to the entire set be issued. Such an Index would require re-indexing each volume for consistency and also due to the fact that some volumes seem to lack indexes entirely. It would best be done by a committee—perhaps of volunteers—working under the direction of the Editorial Board. Funds for its printing would have to be voted by the Board of Directors.

The question resolves itself into, "How much use would a Cumulative Index to the BULLETIN have?" There are too many committees in library work already; as Dr. Viets has so cogently phrased it, "one has a feeling of meeting oneself coming and going."[1] Unless the results obtained are likely at least to equal the work expended, there would seem to be little justification for starting the job.

How do people, especially medical librarians, use cumulative indexes? Our BULLETIN has the character both of a professional journal and the official organ of a Society. As such it has timely and timeless articles on many professional questions, but it also contains Committee Reports, Transactions of meetings, and lists of members. The articles are listed in *Library Literature*, *Quarterly Cumulative Index Medicus*, *Current List of Medical Literature*, *Index-Catalogue*, *Library Science Abstracts*, and in other indexing and abstracting tools. Some of these indexes are too expensive or too much out-of-scope of a medical library for many of our members to possess them. The reports of meetings and news items are, on the other hand, listed only in the yearly indexes of the BULLETIN. To search for the official stand of the Association on any issue over a period of years almost certainly means leafing through

[1] Viets, Henry R. Letting substance into the texture. BULLETIN, 41: 127, April, 1953.

the pages of the volumes published during that time. (Of course this is a delightful way of picking up many odd bits of information by serendipity, but is it efficient?)

It seems to the Editorial Committee that information on the probable usefulness of a cumulative index to the BULLETIN is necessary before a concrete proposal can be made to the Board of Directors. Instead of our sending out questionnaires, we urge you to write to the Editor setting forth your opinions on the matter. Would you use such an index? How? How often? Would you purchase it, if it were sold separately at about $3.00 a copy? Would you be willing to work on a committee to index the set? Your letters will tell us how to proceed.

Association News

OFFICERS OF ASSOCIATION FOR 1953–54

At the annual meeting of the Medical Library Association in Salt Lake City in June, the following were elected to office:

President	Miss Marion Dondale, Albany, New York
Vice President (President-elect)	Miss Wilma Troxel, Chicago, Illinois
Honorary Vice President	Louis S. Goodman, M.D., Salt Lake City, Utah
Secretary	Miss Audrey L. Kargus, St. Louis, Missouri
Treasurer	R. A. Schlueter, Oak Ridge, Tenn.
Board of Directors	Miss Bertha B. Hallam, Portland, Oregon
	J. Alan MacWatt, Pearl River, New York
Nominating Committee	Miss Mildred R. Crowe, Birmingham, Alabama

NEW YORK REGIONAL GROUP

The Spring meeting of the New York Regional Group was held on Wednesday, April 29, at Childs Restaurant, 425 7th Avenue in New York City. After a social hour and dinner, Dr. Frederick A. Mettler, Professor of Anatomy at the College of Physicians and Surgeons, Columbia, addressed the Group on "Research in Psychosurgery and its Literature Needs."

WASHINGTON, D. C., AREA MEDICAL LIBRARY GROUP

Sixty persons attended the second annual meeting of the medical librarians of the Baltimore, Washington, and Virginia area held on Saturday, April 11, at the Psychiatric Institute, University of Maryland School of Medicine, in Baltimore.

The morning program, presided over by Mrs. Breed Robinson, Librarian of the University of Maryland Library of Medicine, Dentistry, and Pharmacy, was opened with a Symposium on Weeding Medical Library Collections. On the panel were: Mrs. Patricia Shaw, VA Hospital Library, Perry Point, Maryland; Miss C. L. Meckel, of the Psychiatric Institute Library, University of Maryland; Miss Elizabeth Reavis, St. Elizabeths Hospital Library, Washington; and Mr. Scott Adams, National Institutes of Health, Bethesda. After a brief tour of the University of Maryland Library of Medicine, Dentistry and Pharmacy, the Group was addressed by Dr. H. B. Mulholland of the Department of Medicine, University of Virginia School of Medicine, on "Medical Education of the Future," and by Mr. Lynn Poole, Director of

Public Relations at Johns Hopkins University, on the "Johns Hopkins Science Review," the TV program which he produces.

After lunch in the dining room of the University of Maryland Hospital, a business meeting was held with Mr. Kanardy Taylor, Armed Forces Medical Library, in the chair. It was voted that the group be known as the Washington, D. C., Area Medical Library Group and that it become affiliated with the Medical Library Association. The Steering Committee for 1953/54 includes: Miss Dorothy Cramer, National Institutes of Health, Chairman; Miss Dorothy Comins, Armed Forces Medical Library; Miss Beverly Franks, Medical Reference Library, Veterans Administration, Washington, D. C.; Miss Janet Houck, Medical College of Virginia, Richmond; and Miss Joanna Millet, Dental-Pharmacy Library, University of Maryland, Baltimore. The meeting next year will be held in Richmond.

After the meeting the Group was transported by bus to the Welch Medical Library, Johns Hopkins University, for a tour of the Library and the Welch Research Project, conducted by its Librarian, Dr. Sanford Larkey, and Mr. Eugene Garfield, and to the Medical and Chirurgical Faculty of the State of Maryland Library, where refreshments were served to the Group as guests of the Faculty and its Librarian, Miss Helen Wheeler.

Miss Marie Harvin of the University of Maryland Medical Library, Chairman of the 1952/53 Steering Committee, arranged the program.

News Items

ARTICLES BY W. D. POSTELL

Two articles written by Mr. William D. Postell have appeared in print in the last year: "Birth and Mortality Rates Among Slave Infants on Southern Plantations" in *Pediatrics* 10: 538–42, November 1952, and "Notes on Postell Family" in *South Carolina Historical Magazine*, volume 54, January 1953. A review of the former by T. R. Van Dellen was carried in the *Times-Picayune* in New Orleans on March 7.

WELCH MEDICAL LIBRARY SYMPOSIUM ON MACHINE INDEXING

On Tuesday, March 3, 1953, a one-day symposium on Machine Techniques in Scientific Documentation was held at Welch Medical Library, Johns Hopkins University, Baltimore, Maryland. The symposium was sponsored by the Welch Medical Indexing Project, in cooperation with the Maryland Section of the American Chemical Society and the American Documentation Institute. It was attended by more than 250 librarians, scientists, and information specialists.

In the absence of Dr. Sanford V. Larkey, Director of the Project and Librarian, Welch Medical Library, who was ill, the meeting was presided over by Mr. Verner Clapp, Chief Assistant Librarian of Congress, who opened the proceedings with a history of the Welch Medical Indexing Project. Papers prepared and presented by staff members of the Project dealt with "Periodical lists; their preparation and analysis by machine," "Machine indexing, machine indexes, and the preparation of printed indexes," and "The 101-statistical machine; its possibilities for information analysis." Mr. Saul Herner, Librarian, Johns Hopkins Applied Physics Laboratory, explained results of an interesting survey of "Information gathering habits of Johns Hopkins scientists." Discussions followed each paper.

Mr. Eugene Garfield, of the Project, gave practical demonstrations of the punched-card equipment both before and after the daytime session. After dinner, a panel discussion dealing with "Future approaches to scientific documentation" was held. It was presided over by Mr. Eugene E. Miller, Armed Services Technical Information Agency and President, American Documentation Institute.

AMERICAN ASSOCIATION OF HISTORY OF MEDICINE HOLDS MEETING

The 26th Annual Meeting of the American Association of History of Medicine, held at the Ohio State Museum in Columbus, Ohio, commemorating the 150th anniversary of the entrance of Ohio into the Union, held a joint meeting with the Ohio State Archaeological and Historical Society. As was fitting, a number of the papers were on pioneer Ohio physicians and dentists. One session was devoted to a symposium on Pre-Columbian Medicine; the Fielding H. Garrison lecture was delivered by Dr. Dorothy M. Schullian of the History of Medicine Division, Armed Forces Medical Library, and was entitled, "An Introduction to the History of Medicine, 1498;" Dr. Ralph H. Major addressed the dinner session on "Etruscans and Their Medicine." Two papers of particular interest to medical librarians were given by Dr. Jean A. Curran of Brooklyn, New York, ("Dr. John Shaw Billings, Medical da Vinci of the 19th Century"), and Dr. Jonathan Forman of Columbus ("Medical Journalism and Journalists in Ohio"). Dr. John F. Fulton, Dr. Chauncey D. Leake, Dr. Lloyd G. Stevenson, and Dr. Howard Dittrick presided at the various sessions.

SURGEONS' HALL OF FAME

Plans for a worldwide Surgeons' Hall of Fame to be established in the headquarters in Chicago of the International College of Surgeons, have been announced in the official *Journal* of the College. Architects are at work on blueprints for the building, the design of individual niches for busts, special lighting, and bronze plaques. Those whose contributions to human welfare will be commemorated will be chosen by vote of an electoral college, with representatives from every part of the world; names will be submitted to this group by the national organizations or by individual surgeons. The International College of Surgeons has a membership of 10,000 distributed throughout seventy-one national sections of the world, with 5,000 in the United States section.

NATIONAL SOCIETY FOR MEDICAL RESEARCH

At the seventh annual meeting of the National Society for Medical Research held on February 8, at the Palmer House in Chicago, it was voted to give an award in the form of a certificate to Mr. Bill Davidson, staff writer for *Collier's* magazine, for contributions to public health and welfare through scientific articles. It was announced that a film on the use of animals in medical research was in production by the Society.

WALTER REED SOCIETY

At the annual meeting of the Walter Reed Society held in Chicago on April 8th, Dr. Max S. Sadove, Head of the Department of Anesthesia, University of Illinois, was elected as the new president. The Society is comprised of individuals who have served as voluntary subjects for experimental research.

DR. JOHN F. ENDERS WINNER OF AWARD

Selection of Dr. John F. Enders, of Boston, as the winner of the Passano Foundation Award for 1953 was announced by the Board of Directors of the Foundation. Dr. Enders, a native of Connecticut, is Associate Professor of Bacteriology at Harvard Medical School. Much of his research has been done at the Research Division of Infectious Diseases, Children's Medical Center, Boston, and the Department of Bacteriology and Immunology of the Harvard Medical School. The award was given in recognition of Dr. Enders' work in the development of methods for culturing poliomyelitis viruses in tissue, opening the way for the preparation of a vaccine which might be used for active immunization against the disease. Presentation of the $5000 award was made at a banquet for about 150 medical men and women at the Waldorf Astoria in New York City on Wednesday evening, June 3.

MEMORIAL TO MRS. JOSEPHINE G. MORTON

The medical librarians of the Washington, D. C., area have presented thirty-one volumes of new medical texts to the Howard University Medical Library as a memorial to the late Mrs. Josephine G. Morton, the Medical Librarian from 1927 to 1952. Each volume contains a bookplate with the notation: "Given in memory of Mrs. Josephine G. Morton, Librarian, School of Medicine, Howard University, 1927 to 1952, by her colleagues in the medical libraries of the Washington area." Taking part in the presentation ceremonies were: Mrs. Ida V. Chinn, Assistant Librarian of the College of Medicine; Dr. Joseph L. Johnson, Dean of the College of Medicine; Miss Estelle Brodman, Armed Forces Medical Library; and Mr. Scott Adams, National Institutes of Health Library.

BRITISH MEDICAL LIBRARY SECTION ARTICLE BY W. J. BISHOP

An article "The Medical Section and its Work" by W. J. Bishop, Librarian, Wellcome Historical Medical Library, appeared on pages 12 to 16 in the *Proceedings, Papers and Summaries of Discussions at the Bournemouth Conference*, 29th April to 2nd May 1952, published by the Library Association in 1952.

NEW MEDICAL LIBRARY AT COLUMBIA

Under the direction of Mr. John G. Jackson, Life Trustee and Chairman of the Council on Medical Affairs at Columbia University, Columbia's Bicentennial Fund for the Medical Sciences is conducting a multi-million dollar campaign to provide additional staff, salary increases, more fellowships, additional scholarships, and new equipment for the College of Physicians and Surgeons, the School of Dental and Oral Surgery, the School of Public Health, and the Department of Nursing. In addition, the Bicentennial Fund aims to make possible the construction of a new building, estimated at $3,000,000, to house Columbia's Medical Library and provide adequate auditorium facilities. The new building will be located at the Columbia-Presbyterian Medical Center on the corner of West 168th Street and Fort Washington Avenue.

ROYAL COLLEGE OF NURSING LIBRARY

An article on the history of the Library of the Royal College of Nursing written by A. M. C. Thompson, Librarian, was published in *The Library Association Record* 50: 332–34, October 1952.

RUTH LEE BRISCOE BOOK FUND

An alumnus of the University of Maryland School of Medicine who wishes to remain anonymous has given $100.00 to the Medical Library of that school to establish the Ruth Lee Briscoe Book Fund. Mrs. Briscoe, Librarian Emeritus, was Librarian at the Medical School for 32 years until her retirement in 1946.

FIRST WORLD CONFERENCE ON MEDICAL EDUCATION

The First World Conference on Medical Education, under the auspices of the World Medical Association, with the collaboration of the World Health Organization will be held at the British Medical Association House, Tavistock Square, London, August 22–29, 1953. The theme of the conference will be Undergraduate Medical Education. One of the topics for discussion in the Section on Techniques and Methods of Medical Education is Library and Reference Services; at this section meeting, Lt. Col. Frank B. Rogers, Director, Armed Forces Medical Library, will speak. An entire issue of the *British Medical Journal* will be devoted to reports of this Conference.

Delegates attending the First World Conference on Medical Education in London in August, will be able to proceed to the meetings of the Seventh General Assembly of the World Medical Association in The Hague, August 31–September 7, 1953.

AWARD TO MRS. SADIE P. DELANEY

Mrs. Sadie P. Delaney, chief librarian of the VA Hospital in Tuskegee, Alabama, received the annual award of the National Council of Negro Women. The citation read, "For distinguished contribution in the field of Library Science and Library Science Education in the United States and abroad, and further for her research and service in the field of Hospital Library Organization for sick and handicapped veterans."

GOVERNMENTAL AGENCY POLICY STUDY

Mr. Phillips Temple, Librarian of Georgetown University, Washington, D. C., conducted a study of the existing policies and programs of U. S. Government agencies which benefit the libraries of the nation. This study served as a basis of discussion at the American Library Association conference in Los Angeles in June.

UNESCO GIFT COUPON PLAN

The UNESCO Gift Coupon Plan, which provides educational, scientific, and cultural supplies and equipment where they are needed abroad, is to have the help of libraries in the form of an informational program under sponsorship of the International Relations Board of the American Library Association. The coupon books will be sold by voluntary community groups or may be obtained direct from UNESCO. Equipment furnished through the plan ranges from laboratory equipment and supplies to vocational and handicraft tools and audio-visual materials. The project for libraries is being directed by Mrs. Rae Cecilia Kipp, Harvard College Library.

COMPANY LIBRARY ABSTRACT BULLETINS DISCUSSED

Company library abstract bulletins were discussed by Miss Alice C. Rankin, Librarian of the Nopco Chemical Company, Harrison, New Jersey, and Miss Winifred Sewell, Librarian of the Squibb Institute for Medical Research, at the meeting of the Science-Technology Group, New York Chapter of the Special Libraries Association held in the New York Times Service Dining Room on March 11th.

The company abstract bulletin endeavors to meet the needs of the busy scientist for good coverage, adequate abstracts, prompt publication, and good indexing. At Nopco a weekly hectographed bulletin is prepared. At Squibb the subject interests broadened from 1946 to 1951 to necessitate an increase in the number of journals abstracted from 300 to 525; in the same period the cost of producing the *Squibb Abstract Bulletin* increased to such an extent that it was discontinued. It was suggested that a cooperative undertaking on the part of many companies to publish an abstract bulletin could meet the needs of its readers more closely than could an individual company bulletin.

NEW CHIEF, DIVISION OF VENEREAL DISEASE

Dr. James K. Shafer of Washington, D. C., was appointed Chief of the Public Health Services Division of Venereal Disease. Dr. Shafer served as the Division's Assistant Chief since 1950. Dr. Clarence A. Smith of Chicago is the new Assistant Chief.

WORLD HEALTH ASSOCIATION

In conjunction with the Pan-American Medical Confederation, the First Western Hemisphere Conference of the World Health Association was held in Richmond, Virginia, on April 23–25, 1953. Papers and panel discussions on differences and similarities in medical practice in the United States and Latin America and on advances in medicine in the last 75 years were presented.

AMERICAN LIBRARY ASSOCIATION HONORED

The American Library Association has received one of the top awards of the American Heritage Foundation for "the most intensive and effective effort by a national professional association" in support of the recent Register and Vote Campaign sponsored by the Foundation. Awards were made jointly by ALA and the American Heritage Foundation to three public libraries for outstanding programs to help bring out the vote in the November election: Grand Rapids (Mich.) Public Library, Chicago Public Library, and Muncie (Ind.) Public Library.

AAUP SCHOLAR'S BOOK LIST

The Association of American University Presses is providing more than 175,000 persons in four academic classifications with a descriptive catalog, the *AAUP Scholar's Book List*, which contains information on books newly published by the university presses in respective fields of interest of the recipients. Complete bibliographical entries are included in addition to fifty-word descriptions.

The four classifications distributed twice each year through the facilities of the Educational Directory maintained by the AAUP are: Humanities, Social Sciences, Biological and Medical Sciences, and Physical Sciences. The mailings for the Biological and Medical Sciences were scheduled for April and November.

WHO'S WHO IN LIBRARY SERVICE, 3D EDITION

Committees are at work on *Who's Who in Library Service*, 3d Edition, to be published in 1953. It will be a directory-type book, including all United States library school graduates and persons doing work at a professional library level. Before the end of the summer all librarians should have received a copy of the questionnaire. Questions may be addressed to Dean Lowell Martin, School of Library Service, Columbia University, New York 27, N. Y.

NEW JOURNALS

ABT (Abstracts of Bioanalytic Technology) is a pioneering quarterly in the science of bioanalytic chemistry, being prepared by the John Crerar Library's Research Information Service for the newly organized Council of American Bioanalysts. Each issue will contain about fifty abstracts from 1,000 technical journals published in English and other languages. The subscription rate is $5.00 a year from the Council of American Bioanalysts, 7 West Madison Street, Chicago 2, Illinois.

The first volume of *Acta Psychotherapeutica, Psychosomatica, et Orthopaedagogica* has been issued. It is published by S. Karger at $8.40 per volume.

The first issue of the *Journal of the American Geriatrics Society* appeared in January, published by Williams and Wilkins at $10.00 per volume.

Leukemia Abstracts is published monthly by the staff of the Research Information Service, John Crerar Library, under the sponsorship of the Lenore Schwartz Memorial Foundation. It consists of abstracts of the world's literature on leukemia and is sent free to medical and research men working in the field of blood diseases and to medical libraries throughout the world.

Thorax Chirurgie; Zeitschrift für klinische und operative Chirurgie, pathologische Physiologie, experimentelle Pathologie der Brustorgane und für Anästhesie, Stuttgart, will be published irregularly by Thieme at $15.00 per volume of six numbers. Volume 1, number 1 made its appearance in the Spring.

CHANGES IN THE NEW YORK ACADEMY OF MEDICINE

Mrs. Sarah Wilson George has resigned from the library after twenty-six years of service. From 1927 to 1929 she was first assistant in the Periodicals Department and up to 1949 its Head. She served as Assistant Librarian from June 1949 through April 1953. Her position will be filled by *Miss Gertrude L. Annan*, who for twenty years has been Head of the Rare Book and History Department. *Miss Eleanor Johnson* has become Administrative Assistant to Miss Annan in addition to her regular duties as Head of the Periodicals Department. *Mrs. Alice Delehanty Weaver* is now in charge of the Rare Book and History Department, and *Miss Lola Szladits*, formerly in the Periodicals Department, is the first assistant there. *Miss Alyce Reitman* is first assistant to Miss Johnson in the Periodicals Department.

PERSONAL NOTES

Mrs. Dorothy Collins, formerly medical librarian of the VA Hospital in Denver, resigned her position there in the early part of the year. The place was filled by *Miss Kaye Mayer*, at one time with the VA and formerly on the staff of Denison Library, University of Colorado School of Medicine.

Mr. James Dance (Columbia '53) has a position in the New York State Psychiatric Institute Library, Medical Center, New York City.

Miss Mary Alice Folk (Columbia '53) is now at the Armed Forces Medical Library, Washington, D. C., in the Reference Division.

Mr. Dean F. Gamble is the new Chemist-Librarian on the staff of the National Institutes of Health Library, Bethesda, Maryland. Mr. Gamble has a Ph.D. in organic chemistry from Pennsylvania State College.

Mrs. Eileen F. Kraus (Simmons) was appointed Librarian of the VA Hospital, Montrose, New York.

Mr. David Kronick, formerly Medical Librarian of the Western Reserve Medical School and recently a Ph.D. candidate at the University of Chicago, has joined the staff of the Reference Division of the Armed Forces Medical Library, Washington, D. C.

Miss Sheila Parker (Western Reserve) has transferred from the Mayo Clinic Library in Rochester, Minnesota, to the Reference Division, Armed Forces Medical Library, Washington, D. C.

Mr. Joseph B. Runey, formerly of the Armed Forces Medical Library, is Chief Air Force Librarian, supervising Air Force libraries and library installations in France.

Mrs. Ouida P. Scruggs (BSLS, MLS Peabody) has been appointed chief librarian of the VA Hospital in East Orange, New Jersey.

Mrs. Harriette Shelton became cataloger in the Dental-Pharmacy Library of the University of Maryland in Baltimore on March 2.

Book Reviews and Journal Notes

The Bulletin of the Tulane University of Louisiana Medical Faculty, v. 11, no. 4, August 1952. The "Library Issue."

This issue derives its special designation from two long articles by Miss Mary Louise Marshall, Librarian, Rudolph Matas Medical Library and Professor of Medical Bibliography, Tulane University School of Medicine, and from a tribute to her introduced by a half-page pen and ink likeness.

The first of the articles, entitled "Medical Library Facilities in New Orleans," is co-authored by Miss Ruth Harlamert, Miss Marshall's Assistant Librarian at the time. The histories of the Rudolph Matas Medical Library of Tulane University and of the Orleans Parish Medical Society Library, administered cooperatively during the last twenty-five years, are traced in some detail. The facilities of these two libraries and of the ten other medical libraries in New Orleans are then noted and one realizes that "all workers in the field of medicine, in New Orleans and its vicinity," can hardly avoid being molded "to a better and higher status" by a "treasure-house of recorded medicine, past and present."

The second article by Miss Marshall is on "The Physician's Private Library: Its Development, Care and Use" and is subtitled "a helpful discussion of the organization and cataloguing of a physician's library." It is rather an extensive article and might also serve usefully as an aid in the organization of any small medical library. It certainly would be advantageous preliminary reading for an untrained fledgling medical librarian and a trained medical librarian can not help but admire the orderly sequence in the description of library procedures combined with suggestions as to different methods and the easily comprehended reasons for them.

As the first article reflects Miss Marshall's keen appreciation of "books as tools" and her desire to foster a close relationship between the medical library and the medical profession, so this article reflects Miss Marshall's experience in training the novice to be a thoroughly efficient working medical librarian.

And it is quite apparent in the tribute to Miss Mary Louise Marshall that none of her professional nor personal attributes have been overlooked by the many whom she has served. This tribute is written anonymously for the probable reason that it represents the feelings of a host of physicians and students rather than of any one person. Surely it displays a warm rapport between her Medical Library and its extensive clientele, past and present, between Miss Marshall, herself, and all with whom she has come in contact. In fact Miss Marshall, in being herself so thoroughly esteemed, has estab-

lished such an appreciation of medical librarians that the rest of us can bask in reflected glory and be proud to know the "Dean of Medical School Librarians" so attractively portrayed in the sketch.

HEATH BABCOCK

MOLDENKE, HAROLD N. AND MOLDENKE, ALMA L. *Plants of the Bible.* Waltham, Mass., Chronica Botanica Co.; New York, Stechert-Hafner, 1952. xix, 328 p. illus. $7.50.

This book, in the present reviewer's opinion, is the most comprehensive treatise in any modern language on plants and plant products mentioned in the Scriptures. Even a superficial examination reveals it to be a work of love, by a devout student of the Bible; and this is understandable when we learn that the senior author is the son of a well known Egyptologist and student of antiquities, and that there are not less than nine members of the clergy in his immediate family. Dr. Moldenke is a distinguished botanist who is at present the curator and administrator of the Herbarium of the New York Botanical Gardens, and his wife (the co-author) is a biologist in her own right. The work deals with the plants mentioned both in the Hebrew Old Testament and the New Testament, and will be found useful by all students of the Bible, whether Catholic, Jewish, or Protestant. The high scholarship of the work is attested by the impressive number of authors, both Hebrew and Christian, consulted. Thus, for instance, in addition to Christian Biblical scholars of America, we find the names of such Hebrew authorities as Dr. M. Evenari, Prof. Ephraim Ha-Reubeni, Dr. M. Zohary, and others of the Hebrew University of Jerusalem. In addition to these, several younger rabbis in the United States have been consulted.

The contents are conveniently arranged as follows: historical sketch; geographical descriptions of the Holy Land; helps to users; plants mentioned in the Bible arranged in alphabetical order from *Acacia* to *Zostera*, 242 species in all, fully described and annotated. In addition there is a description of some unidentified plants, an exhaustive bibliography, a complete index to Biblical passages, and a separate index of plants, authors, and subjects.

Perhaps the most attractive feature of this tome is the very happy arrangement of numerous Biblical quotations at the very beginning of each section dealing with each kind of plants. The writers begin with a list of citations bearing, in their opinion, on the plant under discussion, and then give a description, botanical, and otherwise, of the plant under consideration. Unfortunately, this is probably also a vulnerable feature of the book because it is almost certain to arouse, in parts, a triangular controversy due to its divergent appeal to three distinct classes of readers. The largest group of these, we take it, are pious lay readers of the Bible. The second group comprises scholarly and critical Biblical and Semitic philologists. The third group con-

sists of theologically impartial but rigidly and sometimes truculently scientific botanists and medical men. These will not always agree as to the identification of the various plants with the Scriptural passages submitted by the authors.

As one would expect the book is most useful in connection with the purely botanical sections. Here we have discussions of all the well-known plants and vegetables and plant products mentioned in the Scriptures, such as, Aloes, the apple tree, Cedar of Lebanon, the date palm, manna, myrtle, olive tree, pomegranates, the paper reed, the sycamore, and others. Of course, we find here also adequate descriptions of spices, the ingredients of Biblical incense, such as, olibanum, galbanum, frankincense, myrrh, spikenard, etc. The article on Colocynth is worth reading. Of special interest are the original portrayals of the Rose of Sharon, Almond tree, and Triticum. Under the latter heading is meant wheat, but this section contains an extensive and fascinating description of all kinds of grains and grain products. It must be remarked that some of the descriptions of important substances are not quite adequate, as for instance, that of mandragora, or mandrake, concerning which an enormous literature is already in existence. On the other hand, other sections while not strictly botanical and straggling are extremely interesting and informative, as for instance, the discussion of cotton and linen, lily of the valley, and vitis or grapes.

It is to be regretted that a wider knowledge of Semitic languages and literature, notably of the Talmud, was not consulted. This is especially evident in what is probably the most glaring weakness of the treatise. The reviewer means by this the dogmatic venture of the authors in identifying certain very general Biblical descriptions of medical diseases, now known to be caused by specific bacterial agents. Although it is true that most bacteria are classified as belonging to the plant world, we are not very positive in applying bacterial diagnoses to vague or generalized descriptions of pathological symptoms found in the Bible. Thus, for instance, it is rather grating to the medical scientist to find the following—Eberthella typhi (Schrot) Buchanan; Rickettsia prowazeki da Rocha-Lima; Streptococcus erysipelatis Fahleisen—cited as the etiological agents of typhoid fever and erysipelas, on the basis of the Hebrew words translated as "burning ague" or "extreme burning." Similarly when one reads of Staphylococcus albus and the Staphylococcus aureus, as well as Streptococcus pyogenes, dogmatically adduced as the causes of the Egyptian plague of boils in Exodus and of Job's disease, the medical historian is left unconvinced. We know especially that Job's disease has been attributed to all kinds of pathological agents, and more recently identified with Pemphigus. Perhaps the most curious statement in the book is the description without reservation of the causative agents for gonorrhea and syphilis, which are listed under the botanical headings of Neisseria gonorrhoeae and Treponema

pallidum, respectively. There certainly is no unanimity of opinion concerning the nature of the diseases which are so interpreted by readers of the Bible. Still less is there any scientific justification to list Mycobacterium tuberculosis hominis as the causative agent of the symptoms described in Hebrew as "consuming" or "consumption" found in Leviticus 26: 16 and Deuteronomy 28: 22.

Barring these curious digressions in regard to micro-organisms the book before us is a veritable treasure house of useful information as, for instance, in regard to identity of Hyssop. Jewish readers will be somewhat perplexed to find the citrus fruit known to them as *Ethrog*, which is employed in the ritual of the Feast of Tabernacles, treated under the section on Prunus. As would be expected there are a number of typographical errors, as for instance, the spelling *gehgah* in place of the Hebrew *nega*. The book contains a large number of very instructive and interesting illustrations both of botanical and historical subjects, and altogether deserves a prominent place on the shelves of every student of the best seller of all times.

DAVID I. MACHT, M.D.

LANCISI, GIOVANNI MARIA. *De Aneurysmatibus, Aneurysms*. The Latin text of Rome, 1745, revised, with translation and notes, by Wilmer Cave Wright. Sponsored by the Library of the New York Academy of Medicine. N. Y., Macmillan, 1952. xxxv, 363 p. facsim. $7.50.

After several visits at the Biblioteca Lancisiana with Alessandro Canessa, the former Director, and after reading many scholarly reports of Pietro Di Angelis, the present Director, it is a labor of love to review Lancisi's classic opus magnum. As I remember, Canessa stated that the Library contained 10,000 volumes, "tutti antichi," while about the walls were numerous old mortars, pharmacy jars, and scientific instruments. And the Latin text in this book before me proves a reminder of a tribute to Baglivi, Lancisi's successor, delivered by the same Canessa in 1938. The cadence of his mellifluous Latin words fell like poetry on American ears.

The author has published several translations of medical classics and presents them as smooth finished texts which make instructive and entertaining reading. Unfortunately his wife and collaborator did not survive to see their present effort appear in book form.

According to Assalto, Lancisi had an unusually thorough training in science, philosophy, theology, geometry, and natural history, in addition to regular medical studies. In his quest for knowledge he visited all hospitals in Rome, carefully reviewing the autopsy protocols. In 1672, he received an award of Doctor of Philosophy in the Sapienza, and in 1676, he was elected Assistant Physician in Ospedali S. Spirito in Rome. Louis XIV manifested his appreciation of Lancisi's ability upon learning that he needed certain rare books After a difficult search the monarch obtained the volumes and sent them,

along with a highly complimentary note, to a grateful Lancisi. Lancisi bequeathed his library, a fund to keep the books in repair, and his entire estate to San Spirito.

Lancisi's *De Aneurysmatibus*, although only a section, is the most important part of his contribution to our knowledge of cardiovascular disease. Dealing largely with cardiac dilatation, it contains over 60 studies, with complete clinical histories, analyses of the relation of symptoms to the findings upon examination, and detailed descriptions of the autopsies. Although the physical examination does not include information obtained by percussion or auscultation, it is surprising how much could be elicited without these methods.

Lancisi mentions, however, Leeuwenhoek's work with the microscope and speaks of the irritation to the respiratory system among grain sifters caused by inhalation of dust and "minute worms." Arteriosclerosis, intemperance in eating and drinking, increased vascular tension, injury to the lining membrane of blood vessels, and for the first time syphilis, were all recognized by Lancisi as conditions tending to cause aneurysms. In one instance there was a hereditary factor extending through four generations. In treatment of aneurysm, mercury was used in the presence of syphilis, and ligation of the artery was accepted as a surgical procedure.

Aneurysms were classified as either genuine, with weakness of the tissues and power of resistance being close at hand, or spurious, from increased force of the impetus propelling the blood. Lancisi stresses the importance of direct wounds of vessel walls as a frequent antecedent to aneurysm. The differentiation between this lesion and extravasation of blood, ecchymoses, and cardiac dilatation is not always clear. Much to our surprise he considers dilatation of the heart the most common form of aneurysm. Dissecting aneurysm is described and caries of the vertebra from pressure of such a process are noted among the case reports.

In correlating symptoms and signs, Lancisi's descriptions reveal him to be an eminent clinical physiologist, while in post-mortem examination of the heart, in his comment concerning the coronary arteries, and in his demonstrations of the great vessels, these mark him as a master cardiopathologist.

Perhaps the most striking features of this medieval work are the thoroughness of Lancisi's observations, the exact history taking, the high ratio of autopsies, and their meticulous records. When it is remembered that these examinations were made nearly three hundred years ago, long before diagnostic instruments of precision were thought of, one marvels at the capacity of this eminent clinician.

The format and typesetting have been nicely carried out. The parallel pages of Latin and the English translation enable the scholarly reader readily to compare the two texts. Those interested in heart disease will be grateful to those making this clinical data available for study. The author is to be

congratulated for calling attention to Lancisi's place in the sun as the father of cardiac pathology and trail blazer in the history of cardiology.

HOWARD DITTRICK, M.D.

Kentucky State Medical Association. *Papers presented before The Ephraim McDowell Memorial Meeting, Centennial of the . . . Association*, with a historical sketch of the Association by the Editor, EMMET FIELD HORINE. Bowling Green, Ky., Denhardt, 1952. xliv, 160 p. illus.

The published Papers of the Centennial Meeting of the Kentucky State Medical Association review the early historical background of the Association and its officers and republish its first President's address before the second annual meeting of the Kentucky State Medical Society at Louisville on October 20–22, 1852. This address is noteworthy in that it stressed medical ethics and standards of education and medical practice, much of which is applicable today. The scientific papers presented are by invited eminent authorities of nationai stature covering many fields of medicine. These papers continue the professional spirit and high scientific standards traditionally fostered by the Kentucky State Medical Association in its local and national role in medical practice and education.

WILLIAM S. STONE, COLONEL, MC, USA

LÉPINE, PIERRE. *Dictionnaire français-anglais, anglais-français des termes médicaux et biologiques*. Paris, Flammarion, 1952. 829 p. $7.50.

The principal merit of this new translating tool, as stated by the author in the preface to the *Dictionnaire*, is its existence. In fact, there has not been an English-French, French-English medical dictionary since Méric in 1899. For many years Dr. Lépine of the Microbiology Service of the Institut Pasteur in Paris, was aware of this deficiency, as the result of his contacts with the scientists of the English-speaking world. As editor of the French edition of the British Medical Bulletin, 1945–1948, he became convinced that a dictionary was needed to facilitate and improve the work of his staff of translators, and he accepted, in 1947, the responsibility of preparing this needed reference volume.

Since the dictionary was primarily designed to be a working tool for translators, handiness became one of the primary requirements and comprehensiveness was not envisaged. The French vocabulary was based on Garnier and Delamare, supplementing their choice of words with current terms in the allied sciences, biology, chemistry, and physics, while the English was chiefly based on Dorland's pocket dictionary and Gould. As the English scientific vocabulary is much richer than the French, considerable selection became necessary. Consequently, as Dr. Lépine states, "The result is, as always, a compromise, stressing words and expressions in common use, while the most

important neologisms and technical terms, often appended by a definition or short explanation, are also included." For added convenience, the dictionary contains a supplement of equivalency tables for the conversion of data on temperature, lengths, weights, and volumes.

Doubtless all translators who wish to facilitate their work of translating from or into the French language and who had to substitute polyglot medical dictionaries, such as Clairville and Veillon for lack of a bilingual one, will add the new *Dictionnaire* to their reference shelf. Yet, in spite of the fact that Lépine contains many more entries than Clairville or Veillon, especially in the English-French section which is almost twice as large as the French-English section,[1] it cannot be said that it replaces either of them, since there are still many terms unique to each. (The numerical superiority can partly be explained by the inclusion of more adjectives in Lépine than in the two other dictionaries.) There is little advantage in pointing out misspellings which occur in the new *Dictionnaire*, or omissions, of which there are necessarily many; or even in finding fault with the arrangement, in particular, of compound terms. There are inconsistencies in this respect which are quite misleading at times, especially because of the absence of cross references. These are minor deficiencies in a work which is, on the whole, a carefully edited, adequate, up-to-date, and handy translating tool, the true value of which will only evolve after considerable use.

ELIZABETH K. KOENIG

BROWN, RAPHAEL. *World Survey of Catholic Leprosy Work, a Case Study in Christian Technical Cooperation.* Techny, Ill., Mission Press [1952] 92p. $.75.

This monograph is the first complete objective study of Catholic leprosy work ever prepared for the general public. It is the work of Mr. Raphael Brown, Franciscan tertiary, who intended it to serve as a broad statistical introduction to the subject of Catholic leprosy work as a whole. In making the survey he sent out a questionnaire in English and French to Bishops, priests, Brothers, and Sisters in every area of the world who were concerned with the care of those afflicted with leprosy, more properly called Hansen's disease. It is needless to say that without the wholehearted cooperation of these Catholic missionaries, the study could not have been made.

The replies to the questionnaire reveal that there is a serious lack of sufficient sulfone drugs in most Catholic leprosaria, and that in most areas no more than 10 per cent of those suffering from Hansen's disease are receiving any care or treatment. In view of these disclosures the author recommends that the efficiency of Catholic leprosy work would be greatly increased by the creation of an information office and bulletin for chaplains, Sisters, and doctors,

[1] "Contains 65,000 words, 12,000 anatomical names, and more than 8,500 common medical expressions," UNESCO Bull. Libr. 7: E78, 1953.

and an international Catholic leprosy aid society. He believes that the two suggested measures, though definitely related, are not necessarily interdependent. It is quite feasible that they be instituted separately and successively. The publication of this research study may lead to the founding of such a bulletin and the formation of such a bureau. Apropos of these recommendations, it is interesting to note that in the United States there are two societies dedicated to aiding Catholic leprosy work, and in France and England two like societies, all four of which have been founded by lay people.

A significant feature of this case study is a message to Catholic leprosy workers by His Excellency, The Most Reverend Tomás Aspe, O.F.M., Bishop of Calinico, who has himself been a patient in the leprosy sanatorium of Baldomero Sommer in the Argentine Republic for more than eight years. His Excellency once took care of a Franciscan priest who was in an advanced stage of leprosy, but he is quite certain that he already had the disease at that time. Although he is not at all well at present, his illness is not evident externally except to medical specialists. In the majority of cases, the Bishop writes, leprosy is not the most painful of diseases; it is not the most fatal disease; it is not the most contagious of diseases; and it is not the most incurable disease. With modern methods of therapy many patients are discharged and return to their homes and occupations and social life. Leprosy is, nevertheless, a most terrifying disease because it is the only sickness that turns its victims into pariahs.

Towards the end of the monograph may be found a directory of over 300 leprosy institutions either owned or staffed or visited by Catholic priests, Brothers, or Sisters. Resident and non-resident patients are indicated and, when possible, the number of Catholic patients, in parentheses. The annotated bibliography should prove useful and interesting not only to those who wish to study Catholic leprosy work but to the general reader as well.

MARY A. DIXON

Library Trends, a publication of the Univ. of Illinois Library School; Harold Lancour, Managing Editor. Vol. 1, No. 2, October 1952: "Current Trends in Special Libraries." Edited by HERMAN H. HENKLE. Urbana, University of Illinois Library School. Subscription: $5. yearly; individual issues, $2. Quarterly.

This is the second issue of a new quarterly journal launched in July 1952, by the University of Illinois Library School. Rather uniquely each issue is concerned with only one aspect of librarianship and each is planned by an invited guest editor.

Herman H. Henkle, as guest or "issue" editor of this number, has collected ten quite interesting and worthwhile articles on "Current Trends in Special Libraries." Taken as a whole these articles, written by persons well known as

experts in their respective fields, cover rather well the range of special library interests: organizational relationships, documentation, public library relations, international interests, education, and some specific problems and programs.

Because several of the authors lament an absence of standardized terminology and struggle with definitions and attempts to clarify "special," the reader is conscious that there still remains uncertainty and perhaps some confusion as to what is meant by a special library or special librarianship. In fact, Mr. Henkle's introduction is entitled " What is Special?" In his answer he says ". . . special library service involves participation by the librarian in the seeking and organization of information for specific purposes . . . The ultimate form of such service is completion of the total library research job for the client . . ." Perhaps that is as close as we can come.

The student planning to work in the library of a large industrial or manufacturing company will find Irene Strieby's article of considerable interest. A trend in the direction of increasing emphasis on the library as a communications center for company wide service in such business organizations as represented by her own (Eli Lilly & Co.) is indicated by Mrs. Strieby.

Jesse Shera, discussing the relationship of special librarianship and documentation, does an excellent job of concisely presenting the historical backdrop for this particular area and in comparing the American and European philosophies on documentation. However, I am not yet convinced that a great difference exists between special librarianship and documentation. Although he does express hope in the current reorganization of the American Documentation Institute, I was somewhat disappointed not to have Mr. Shera's prognostication as to what the future does or should hold in this whole area.

We learn from Rose L. Vormelker's paper that first interest in an association for special librarians sprang from the interest of librarians doing special work in public libraries. She indicates that there is considerable evidence that a cycle has been concluded and that once again public libraries and public librarians are growing more special library minded. As encouragement and aid, she lists the necessities and conditions required to set up a special library program within a public library.

In addition to performing as editor, Mr. Henkle has given himself the assignment of writing on the "Crisis in Scientific and Technical Libraries." I believe no one will argue with his statement that the root of most of the difficulties lies in the great increase in the volume of literature produced. He points out the chief elements of inadequacy of coverage adding that the fullness of coverage has been greatly complicated recently by the inability to obtain the rapidly increasing numbers of technical reports resulting from the tremendous governmental research activity. It is suggested that more such techniques as that of the MLA Committee on Periodicals and Serial Publications in categorizing the Latin American medical serials into groups of relative

importance, be employed in other fields to provide sorely needed evaluative guides through the "bewildering confusion" of serials. With a note on the possibilities that may come from experimentation with machines, Mr. Henkle looks forward optimistically to better days.

In his paper on "Specificity in Subject Headings and Coordinate Indexing," Mortimer Taube deals almost too briefly with a most perplexing and technical problem, that of subject analysis of publications. Although certainly a subject of great interest in the special library field, I do not feel it is by any means of interest only there.

Three papers on different aspects of special librarianship abroad are presented by Edward Carter of UNESCO, Robert L. Collison of the Westminster Public Library, London, and H. A. Izant of the World Health Organization, Geneva.

UNESCO's interest in subject coverage and in methods of international communication are described by Mr. Carter, who glimpses possibilities that have never existed previously because governments, which have never before had questions of library service brought to their attention, now see the important role to be played by libraries.

It is Mr. Collison's theory that World War II stimulated the strength and size of existing libraries and the creation of new ones and he lists examples to prove that since the war the trend has been accelerated. He urges more exchange of librarians between countries and cites the promising scheme currently being considered by ASLIB and SLA for exchange between individual libraries on both sides of the Atlantic.

The library services of WHO are described by Mr. Izant who informs us that one of the goals of WHO is to build up at least one adequate medical library in each member country. Surveying the needs of the world he says the appointment of a medical library consultant to the WHO Regional Office for Europe and the granting of medical library fellowships are indications of possible future developments.

In the final paper on "Special Library Education," Edward N. Waters maintains that the training of the special librarian remains problematic because he is such "an ill-defined creature." Of library schools he says that "if they claim responsibility for training the country's librarians, they should measure that responsibility in its broadest terms, not merely by the framework of a core curriculum leading to the first degree." Mr. Waters does an excellent job of boldly bringing on stage some of the deficiencies of present educational methods, but I see no real solution offered here, other than the idea that there should be special education for special librarians.

Although it might be wished that more of the authors had come closer to evaluative recapitulations of their respective subject areas, we can agree with the editor as he says in his introduction that "read as a group, these papers

. . . make a constructive and timely contribution to this vital aspect of the profession of librarianship as a whole."

KANARDY L. TAYLOR

President's Commission on the Health Needs of the Nation. *Building America's health, a report to the President.* Washington, D. C., Gov't. Print. Off., 1952. xiv, 80 p. illus. $0.50. (Findings and Recommendations. v. 1)

Announcement of the creation of the President's Commission on the Health Needs of the Nation was made by Mr. Truman on December 29, 1951. Friends of the Administration hailed the move as a constructive act; unfriendly forces disposed of it as another bit of political maneuvering. Those who viewed the task of the Commission objectively realized that in the space of a single year the most that could be done would be to compile data and opinions from sources already in existence. The focussing of public attention on the known health needs might, it was felt, lead to beneficial action.

In the preface, it is stated that Volume 1 "includes the Commission's principles, major findings and recommendations." Quite naturally, Volume 1 reflects the personality of the Commission as a collective entity, with some of the stronger characteristics of individual members protruding here and there. Some of these characteristics take the form of illuminating minority or individual opinions and recommendations. As might have been expected, the dissent is most vociferous on the controversial issue of financing health services (voluntary vs. compulsory health insurance).

The Commission is to be congratulated for having been able to present, in an 80 page document, a concise and comprehensive picture of America's health resources, needs, and problems. Whether or not one agrees with the major conclusions and recommendations, one must admire the manner in which so much is said in so few words. This volume should be read, and kept for reference, by all who have any interest in the future health and welfare of the country; in short, by all responsible citizens.

LEONARD J. GOLDWATER, M.D.

WILLIUS, FREDERICK, ed. *The Aphorisms of Dr. C. H. Mayo and Dr. William J. Mayo.* Springfield, Ill., Thomas, 1952. 107p. $2.75.

From the many writings of Doctors Mayo, Dr. Frederick Willius has gleaned a number of aphorisms, concisely presented for the ready perusal of the busy man. In presenting the sayings of Charles Mayo and those of William Mayo in two parts he has no doubt achieved a subtle, comparative description of these men which is undoubtedly more evident to those who have known and worked with them. From the sayings of Charles Mayo one has the feeling of a Will Rogers of medicine; kindly, flexible, idealistic but keen; in direct contrast to Brother Will, realistic, direct, calculating, and more inflexible. It has not

been my pleasure to know more of these men, but it would be interesting to have the reactions of those who did. Perhaps this feeling is better exemplified by quoting from the foreword by Charles Mayo who says of his father and "Uncle Will," "Personality differences in their individual characters but added to the strength of a perfectly matched team. Each complemented the other."

In the short time it takes to thumb through these sayings, many of them truisms, we find many with a ring of familiarity. Some we have used before Frederick Willius abstracted them for our pleasure. They demonstrate the extent to which the "Brothers Mayo" influenced the minds and hearts of the modern men of medicine. Theirs is a combined idealism that we must not lose. One can spend a number of very delightful moments browsing through this publication.

N. C. LEONE, M.D.

BYCHOWSKI, GUSTAV AND DESPERT, J. L. *Specialized Techniques in Psychotherapy.* New York, Basic Books, 1952. xii, 371p. $5.00.

With the growing interest in psychotherapy, many specialized techniques have been developed by the many workers in the field. Much of the information about these techniques has hitherto been found only in periodical literature, and hence has been difficult of ready access. Furthermore, a large part of the material is only passingly touched upon in general works on psychotherapy. For these reasons the appearance of this book is timely.

The editors of this volume, experienced psychiatrists with an analytic orientation, have gathered essays by 19 authors on particular psychotherapeutic approaches to specialized groups of psychiatric patients. Such topics of more or less general applicability as narcosynthesis, hypnoanalysis, art therapy, and group therapy are discussed: then, chapters follow on special groups or conditions, such as marital problems, children, schizophrenics, the crippled and disabled, stutterers, alcoholics, sex offenders, borderline cases, depression, and psychosomatic disorders. A final chapter presents certain aspects of Rorschach technique. A selected bibliography follows each chapter.

The volume can be heartily recommended for inclusion in medical libraries as a useful and convenient compendium in its field.

WINFRED OVERHOLSER, M.D.

LÓPEZ SÁNCHEZ, JOSÉ. *Vida y obra del sabio médico Habanero Dr. Tomás Romay Chacón.* La Habana, Libreria Selecta, 1951.

Tomás Romay Chacón (1769–1849), Cuban physician, statesman, writer, and poet was born as the son of a well-do-do Creole family at a time when the English occupation of the Island (1762–63), short as it was, had made the colonists aware of their importance for the Spanish mother-country. Thus, his life span embraces the exciting and turbulent period of the awakening and

ripening of the Cuban nationalist idea and movement, a development in which he took an active part. A devout Catholic and ardent admirer and supporter of the Spanish monarchy, he was at the same time a fervent patriot, an honor member of the Sociedad Patriótica de Amigos del País. This organization more than any other single agency was responsible for the social and economic progress of Cuba and for the development of the arts and sciences in the island. Romay's influence was due not only to his talents as an orator, but also to the fact that he established the first journal on the island of which he —with Las Casas—was the editor. The vicissitudes of his political career make exciting reading. The author is equally skilful in making us understand Romay's life in the light of the history of his country and in presenting to us that history through the thought and actions of one most closely associated with the "new Cuba."

It comes as a pleasant surprise that, with all this, Romay still had the time to establish a solid claim to medical fame. He worked incessantly and against strong and even violent opposition for the introduction of smallpox vaccination; he unhesitatingly vaccinated his own children so as to convince his opponents. His victory meant the beginning of preventive medicine and public hygiene in Cuba. Romay's scholarly pursuits culminated (1797) in a dissertation on the dreaded "vómito negro" (yellow fever), an outbreak of which occurred in 1794. It is with this dissertation that scientific medical writing gets its start on the island. True, the paper does not contain anything startlingly new, but it shows its author as an excellent observer and independent thinker whose medical philosophy has its roots in Hippocrates rather than in Galen or the Arabs. But, we admire him most when the cholera epidemic of 1833, the most violent epidemic ever to sweep Cuba, sees the seventy-year old physician fighting in the front-lines, tirelessly at work in hospital and sick-room, even when his daughter dies, a victim of the disease.

It is easy to see that Dr. López had a wealth of material for his biography. He has presented it in a masterly style and documented it fully with bibliographical footnotes and appendix. He has given us a final moving picture of an interesting personality and shown us a piece of Cuban history well worth our study. The book received the prize of the Federación Médica de Cuba—and deservedly!

KARL A. BAER

MONEY-KYRLE, R. E. *Psychoanalysis and Politics: A Contribution to Psychology and Morals.* Toronto, McLeod, 1951. 182p. $4.

In this brief book, "a pioneer work of applied psychology in the field of morals, ethics, politics, and statecraft," the author attempts to explore the unconscious processes that influence political desires and beliefs. Long a philosopher and psychoanalyst, he had been influenced by successive attitudes

to morals, which followed and contradicted each other. He was led to renounce the doctrine of ethical relativism when it had become emotionally untenable in relation to the morals of the governments of Hitler and Mussolini. His search for a satisfying alternative was implemented by an experience as a member of the German Personnel Research Branch Selection Centre, an official group charged with the selection and placement of suitable leaders for positions of trust and responsibility in the new democratic Germany. In this survey two contrasting groups emerged. The members of one group displayed a humanist conscience, those of the other group an authoritarian conscience. The man with the humanist conscience "felt tyranny to be the greatest evil, was shocked and shamed by what Germany had done, and was deeply grieved and acutely conscious of a sense of personal responsibility and guilt." The authoritarian conscience was displayed by the man who denied any conscious sense of guilt but who was obsessively loyal to whatever authority he served, and demonstrated a deep sense of duty of obedience to whomever was over him. He demanded of his subordinates an equally uncritical obedience to himself. The authoritarian conscience predominated in the survey. This was also the type of conscience in prewar Germany, where those who held authoritarian posts were trained to accept any moral code imposed on them from above, whether by the Hohenzollerns, the Weimar Republic, or by Hitler.

The two types of conscience could be readily correlated with home background and occupation. Almost all of the humanists came from homes where there had been an unusual degree of freedom and affection, and were to be found more frequently among those who had followed art or science as a career. The authoritarians, on the other hand, experienced a strict patriarchal early environment to which they gratefully attributed their own regard for discipline. Their occupations were in the fighting and civil services.

The author, in a theoretical section of the book, presents Melanie Klein's contributions to psychoanalytic psychology, particularly her descriptions of the persecutory and depressive positions of early infancy and their influence on character development. Combinations of irrational defences against persecutory and depressive anxiety produce a variety of character formations. Three distinct types of character are defined: the authoritarian, whose strict superego makes him inhuman in the pursuit of whatever he feels to be his duty; the hypomanic, in whom the superego is mastered by the ego so that he pursues his aims unhindered by any conscious sense of guilt; the hypo-paranoid, whose sense of guilt is continually projected. These character types are particularly dangerous as they affect group relations.

Like individual relations, group relations tend to be influenced by unconscious processes. The friendliness or hostility in them is determined by the pictures or beliefs which the members of each group form about their own and

other groups. These are frequently distorted. If the mechanisms which produce the distortions were more generally understood, the distortions would tend to disappear. This would not abolish conflict, but would enable rival groups to discuss their interests in an atmosphere of greater realism, more mutual sympathy, and less tension.

To demonstrate the interdependence between social form and individual character the author presents the examples of Germany and England. Germany fostered the authoritarian conscience, England, the humanistic. In both, a change in the nature of the state, either towards the authoritarian or the humanist end of the scale tended to be reproduced in the home and school, and so favored the development of a character that modified the concept of the state still further in the same direction.

The author concludes that this book may be a contribution to the settlement of ideological disputes by argument rather than by force. He states that humanist character and humanist morality are attributes of insight into ourselves and others; that humanism and wisdom thrive most easily in the kind of state that seeks to provide welfare without curtailing freedom. The main impediment to the achievement of such a state is the political influence of unconscious motives, and this can only be lessened by becoming conscious of them.

This is a thought provoking book. Much of it will be difficult to understand by anyone who has not had a background in psychoanalytic psychology. Although one wonders how the author's concepts can have practical application, the author is to be complimented on his theoretical deductions. Unfortunately, because of its profundity, it is unlikely that this book will be read and understood by those in a position to apply its information most suitably.

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